

Manufacturers Record

Industry Construction



BALTIMORE, MD.

AUGUST 20, 1931

The Cotton Situation

The depth of interest in the American cotton situation has aroused voluminous discussion, which possibly may tend to obscure fundamental points. Aside from a proposal for actual destruction of part of the crop, which is unwise and impracticable, the nature and the number of suggestions advanced indicate the determination of the South to solve the problem—a determination which will hearten the entire country.

There is no occasion for too many gloomy expressions in the South or elsewhere about the South. The South continues solvent. It has handled big crops before. The financial loss may be severe but the finger of distress is not pointed to the South alone at the present time, or at cotton as the only product selling below production costs.

Artificial palliatives which have no basis in sound business practice should be ignored.

It may be found practicable, with banking cooperation, to withhold at least one-third of the crop from the market for a year, with an agreement by the growers that half or more of a normal acreage will not be planted to cotton next year. The effect of such an announcement on prices and on business generally would prove immediately most helpful. The acreage withdrawn from cotton could be turned to the production of food products, to the inestimable and permanent advantage of the Southern States. The dependence upon outside food supplies makes the cotton situation largely what it is. The motto "Live-at-Home" should be stressed unceasingly.

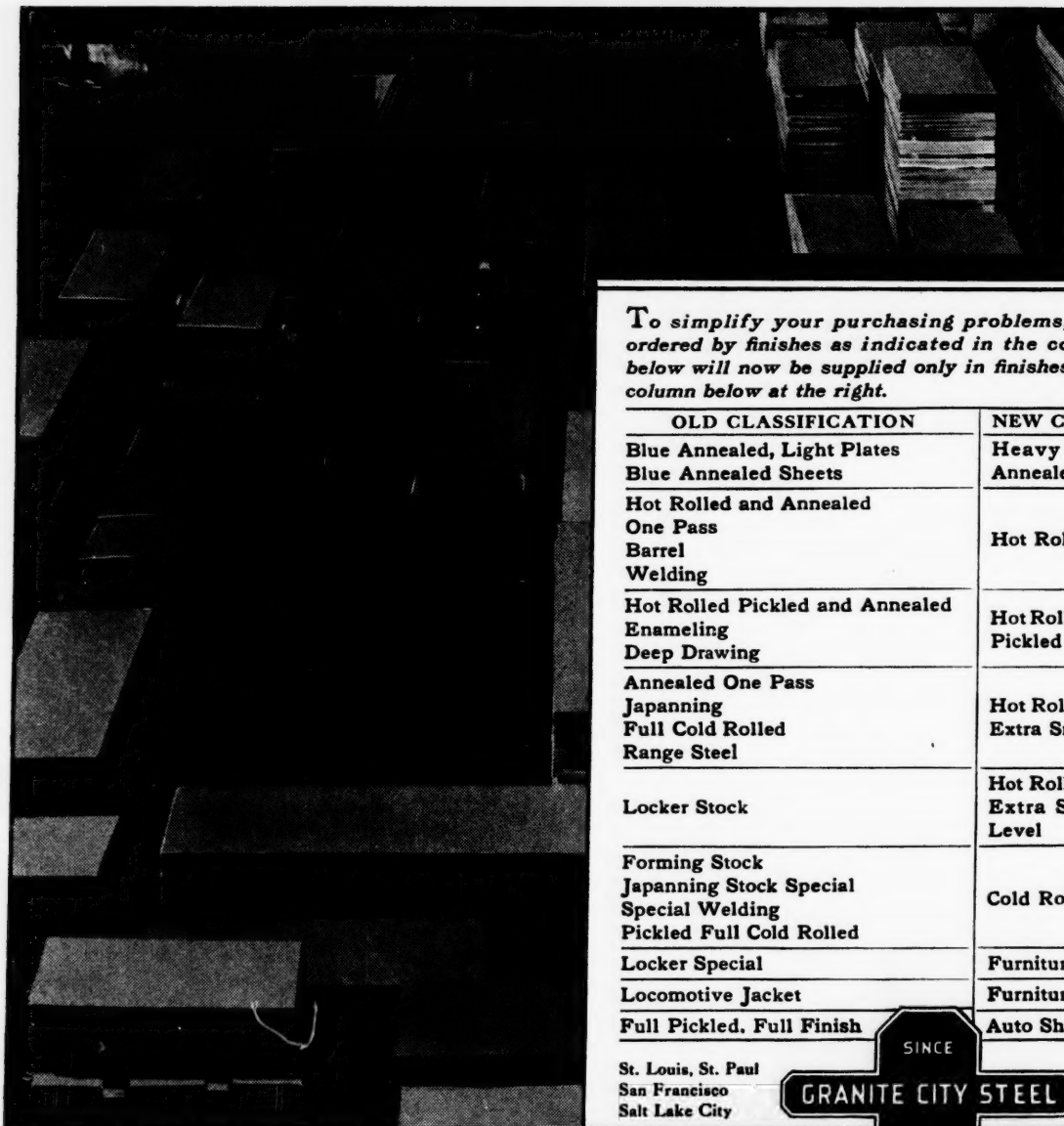
From another viewpoint, on the side of encouragement, with the staple selling at present prices foreign buying of American cotton may be revived in volume. The very cheapness of American cotton for a time will naturally compel the abandonment of much acreage, discourage increased production at home and abroad and tend to stop the opening of new cotton areas.

Furthermore, based on past experience, low-priced cotton promotes greater activity in textile manufacturing. Consumption is thus stimulated, which offers encouragement for the future, provided the South fully determines to turn its energy toward increasing the quality and length of the staple, growing better cotton on fewer acres and producing food for local needs. The solution rests with local bankers and other suppliers of farm credit, as much as with the individual grower. The financial and business element in the South must assume leadership proportionate to its responsibility.

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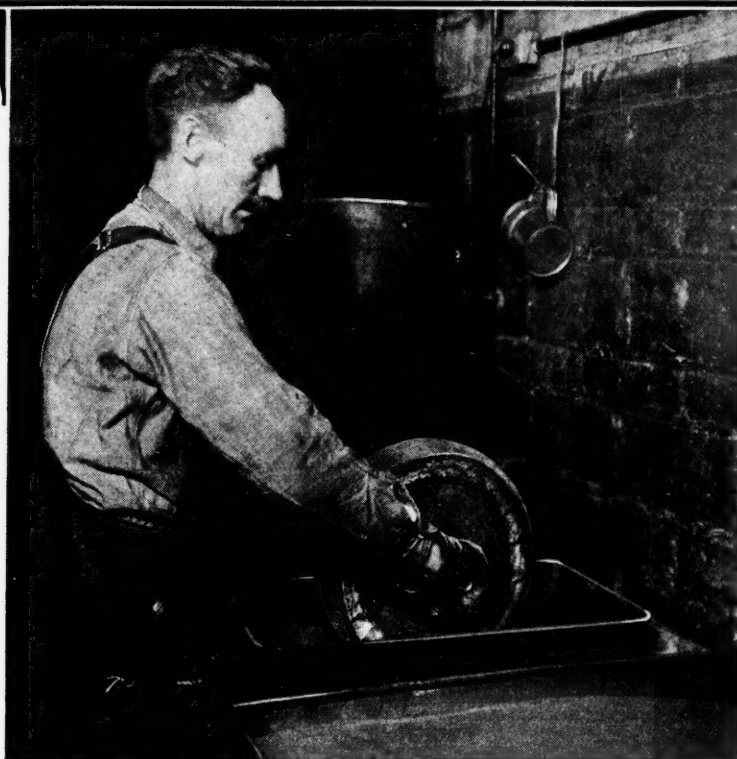
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Entered as second-class matter at the Postoffice, Baltimore, Md., under the act of March 3, 1879. Vol. C, No. 8, weekly.

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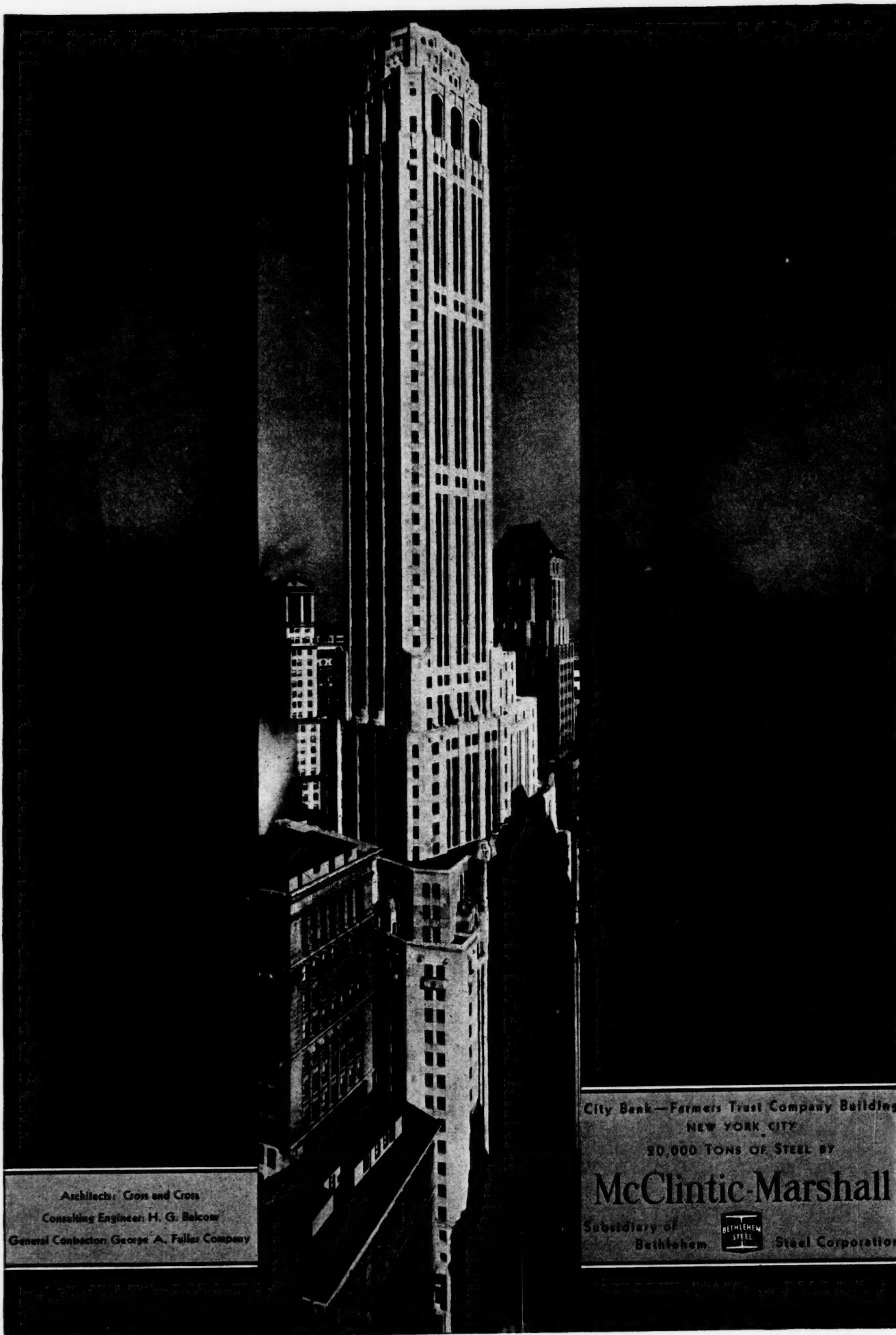
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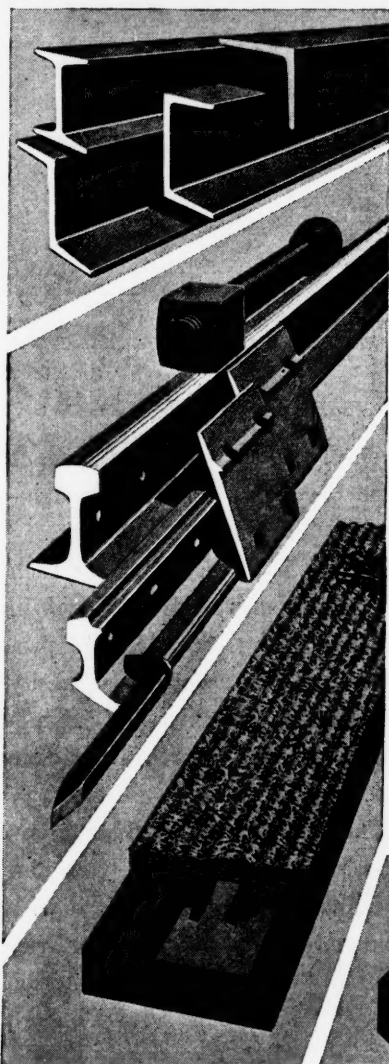
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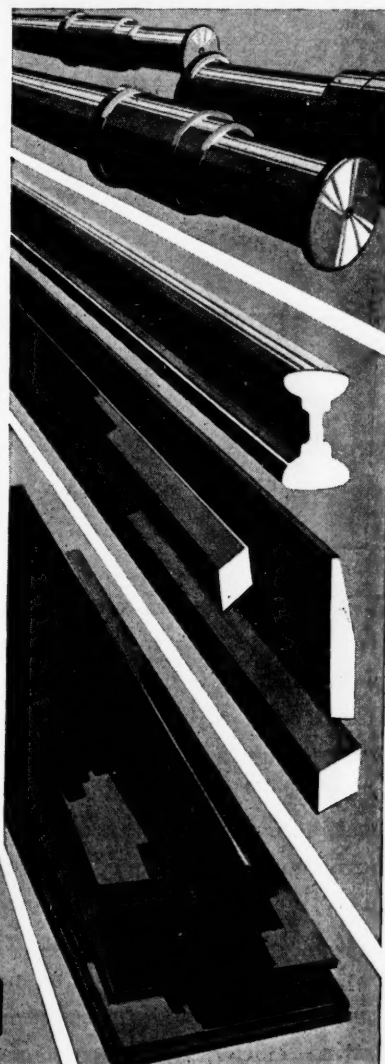


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There is no surer way of selecting a first class steel product than to purchase from a concern with a good name.

When you settle on Tennessee as your source of supply, you have taken a most important step in your selection of materials. You *know* that the quality will be *right*, the size will be *right*, the finish will be *right*, and the shipment *right* when you want it.



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This roof *provides* permanent comfort.. **DOES YOURS?**



IT WILL... IF YOU INSULATE THE
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THE PERMANENT INSULATION...

"I WANT LASTING COMFORT" said the owner of this building. So the old roof is being replaced with a 2" layer of Armstrong's Temlok. Brent Building, Pensacola, Florida.

WINTER and summer, the roof of your building can play a big part in insuring comfort. It can be more than an umbrella, to shut out rain. The good roof—one that is well insulated—bars heat, too. It keeps out the sun's burning rays in summer, and locks in costly furnace warmth in winter.

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Armstrong's Temlok, you can know that the roof will be thoroughly protected as long as it stands.

This new, improved, low-cost insulating board is made from the heartwood of southern pine. Its resin-impregnated fibres offer a twofold advantage: They are highly efficient insulators, effectively stopping the passage of heat. And they resist moisture, the deadly enemy of insulating materials. Together, these qualities make Temlok per-

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Temlok is made in full half-inch and full inch thicknesses and in built-up layers for adequate protection of any roof. It is easily worked and quickly laid. Structurally strong, it provides a firm base for roofing.

The coupon below will bring you interesting details about this new fibre insulating board. Send it with your name and address to Armstrong Cork & Insulation Company, 944 Concord St., Lancaster, Penna.



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Please send me your illustrated booklet, telling about Temlok Insulation for the roof, and how it can add lasting comfort to my building.

☐ Please send sample.

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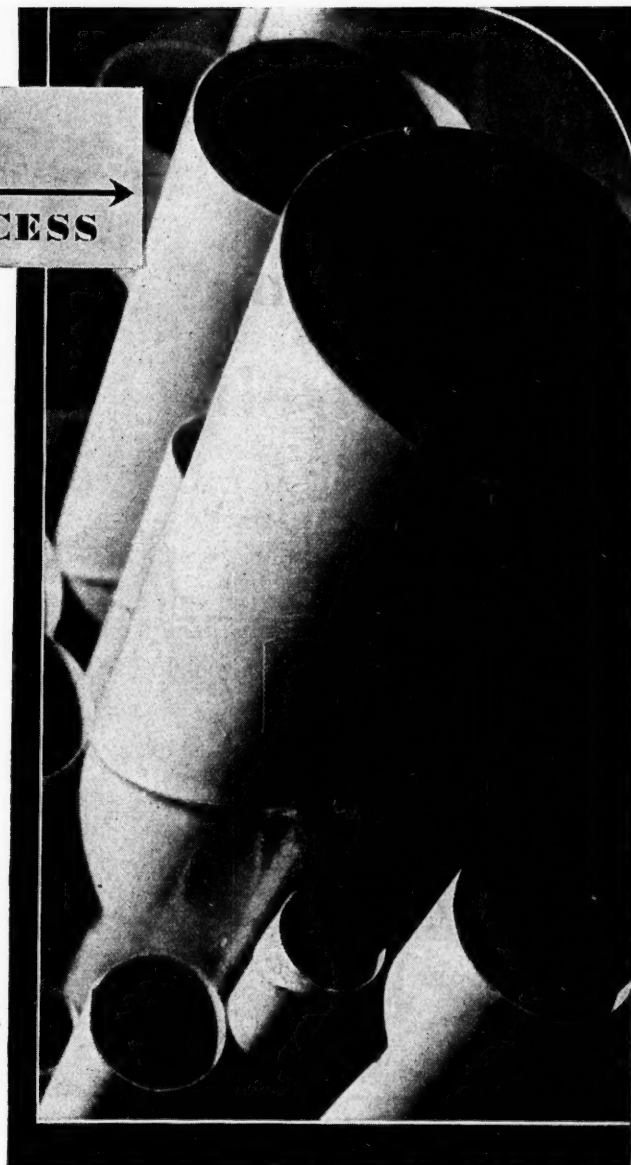
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TO the shipping clerk, trucker and field worker, Armco Spiral Welded Pipe is light in weight. But when it comes to performance, it can be depended on for full duty. This improved pipe does its job efficiently because it is fabricated precisely from true-gage coiled plate and *tested to twice the specified working pressure.*

Absence of surplus metal brings lower handling costs all along the line, while perfect circle roundness insures ends that match and couplings that fit. And the smooth inner wall facilitates free flow and full discharge.



Order Armco Spiral Welded Pipe for your next line, and watch installation costs fall and efficiency rise. Any of the offices listed below will give you complete information about this light, strong pipe. Write for a copy of our 40-page illustrated handbook.

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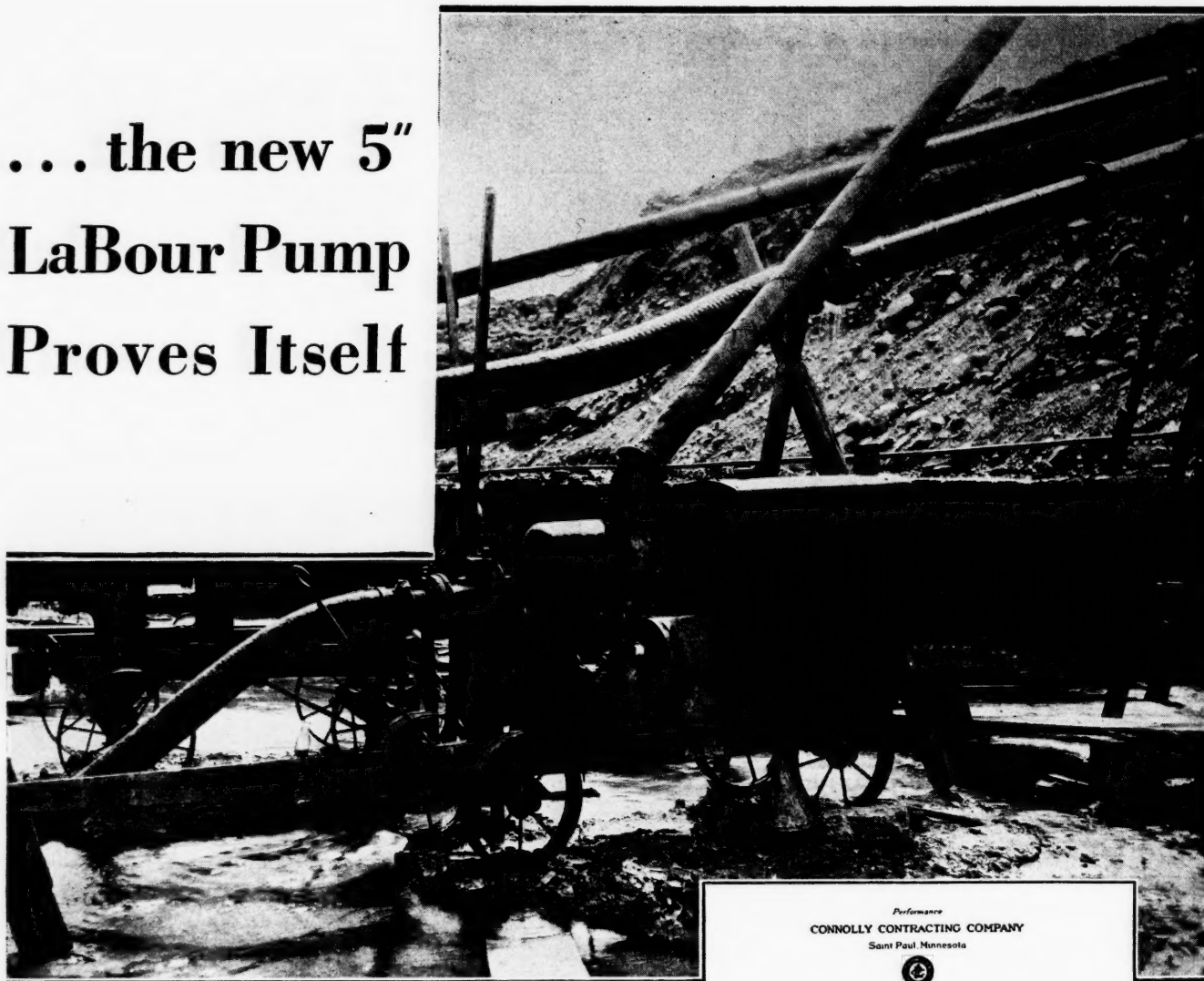
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Quick Facts:

No surplus metal	Sound helical welds	Smooth interior	Round and straight	Light and strong
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Diameters 6" to 24"	Wall thickness $\frac{1}{8}$ " to $\frac{1}{4}$ "		Ingot Iron or Steel	
Mill-coated, asphalt-dipped, galvanized or leadized				

... the new 5" LaBour Pump Proves Itself



Reports now beginning to come in substantiate in every particular the results of factory tests made on the new No. 40 (5") LaBour Pump. This photograph shows one of the new pumps at work on the Brandon Road Lock and Dam near Joliet, Illinois. The letter reproduced to the right needs no comment or explanation.

LaBour Pumps are dependable as contractors and engineers have found over a period of years. This newest model added to the LaBour line has demonstrated, in actual use, the same superior qualities which have made other LaBour Pumps so widely and favorably known.

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Performance
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Saint Paul, Minnesota



Joliet, Illinois
Box 988
June 12, 1931

LaBour Company,
Elkhart, Indiana

Gentlemen:-

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The writer has personally known and used these pumps some two years ago. The attractive feature about them is that they will either pump a small amount of water, or a large amount of water without the trouble of prising or the use of foot valves.

These pumps have been running constantly—day and night—since March, 1931, without any maintenance charges whatsoever.

It seems a shame that we cannot purchase these pumps in larger sizes such as 6 to 10 inches.

Yours truly

CONNOLLY CONTRACTING COMPANY

BY

A. W. Marshall

AWM:H

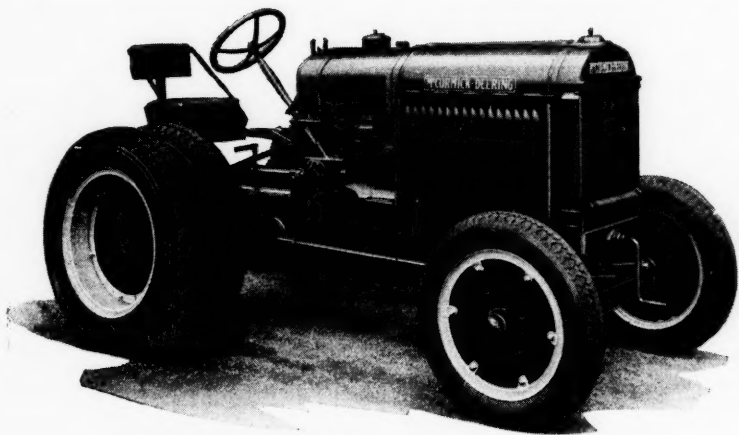
A. W. Marshall
Civil Engineer in charge
Brandon Road Lock & Dam.

LA BOUR PUMPS

NEVER LAY DOWN ON THE JOB

POWER

That Saves You Money



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Model 30 is a larger size.*

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A demonstration will be given gladly, without obligation, by the nearest of 117 Company-owned branches in the United States and Canada, or a McCormick-Deering distributor or dealer. This widespread organization, in touch with every point, renders service on McCormick-Deering Power that makes it doubly valuable on the job. Write for information.

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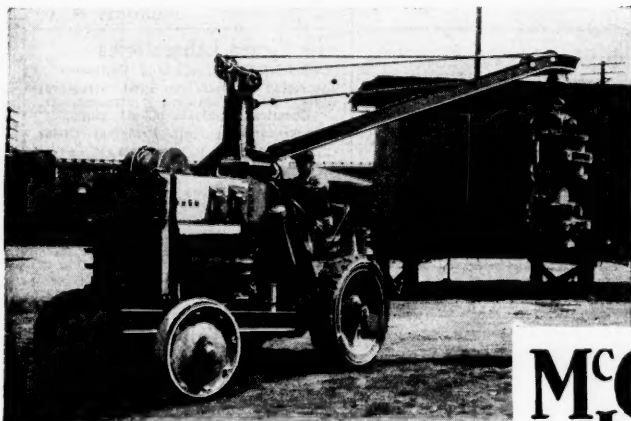
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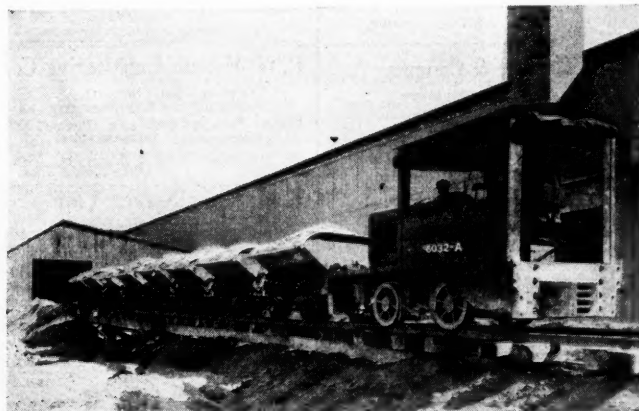
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The McCormick-Deering makes an easy job of moving bulky pieces which are hard to handle by manual labor.



This is one of the types of cranes powered by McCormick-Deering that is available for factory work.



For many types of industrial haulage the McCormick-Deering-powered locomotive effects important economies in man power and equipment.

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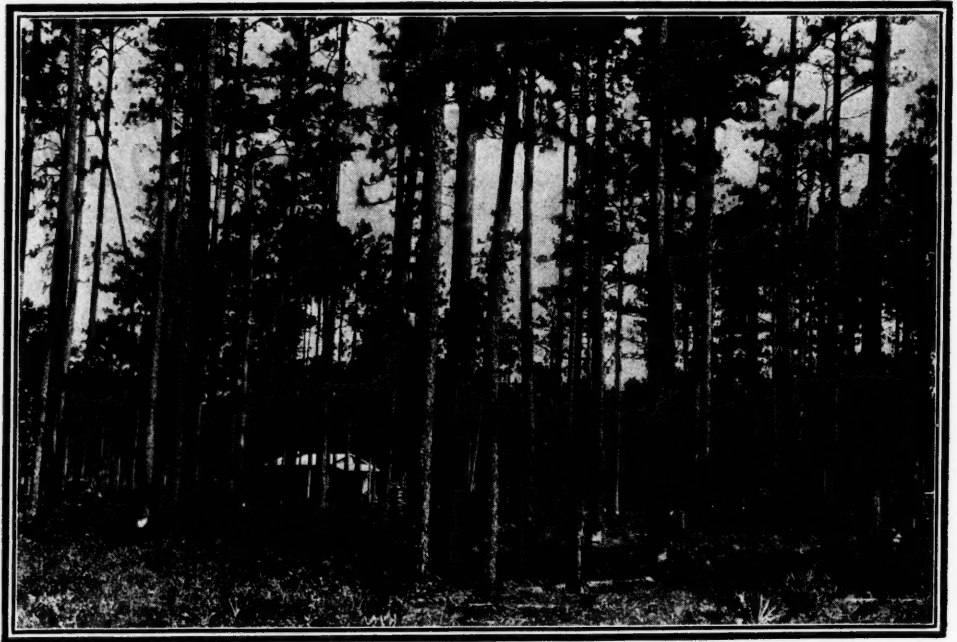
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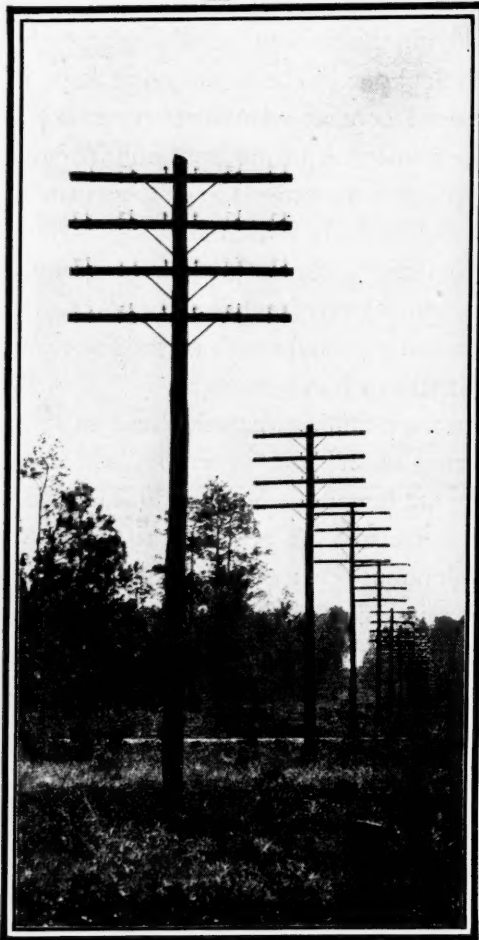
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Baltimore, Md., August 20, 1931

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MANUFACTURERS RECORD

MAIN OFFICE
Manufacturers Record Building,
Commerce and Water Streets,
Baltimore, Md.

Published Every Thursday
by the
MANUFACTURERS RECORD
PUBLISHING Co.
FRANK GOULD, President

BRANCH OFFICES
Chicago—11 S. LaSalle St.
New York—901 Singer Bldg.

Subscription Rates: \$6.50 a year (in advance); six months, \$3.50; three months, \$2.00 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada add postage \$1.00 a year. For other foreign countries add postage \$3.50 a year. Single copies, 20c.; back numbers, one to six months, 50c. each; over six months, \$1.00.

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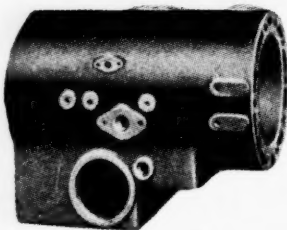
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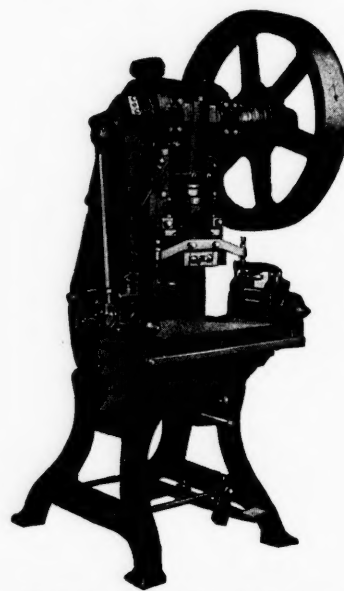
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Manufacturers Record

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Devoted to the Upbuilding of the Nation Through the Development
of the South and Southwest as the Nation's Greatest Material Asset

Vol. C No. 8 }
Weekly }

BALTIMORE, AUGUST 20, 1931

{ Single Copies, 20 Cents.
\$6.50 a Year }

Taxation Throttles Industry

IN discussion of the Federal income tax, May 14, the MANUFACTURERS RECORD showed that only 2 per cent of the United States population paid individual income tax in the fiscal year 1930, while 53 per cent of the American corporations which filed reports paid an income tax. The significance in this comparison has gained weight in the months since May, and the discrimination approaches a point substantially harmful to American industry and business and the citizenry, alike.

The policy of the Federal Government for 10 years has been primarily to relieve the individual from direct taxation, until "by raising exemptions and credits and allowing credit for earned income the small taxpayer has been almost entirely relieved of the burden of federal taxes," as Secretary Mellon explains. Business has been less fortunate and, although lower rates have been substituted for "excessive ones," they "have proved more productive in revenue than were the higher rates," still quoting Secretary Mellon.

Going farther afield, the incorporated manufacturing, mercantile, commercial and amusement enterprises of the United States contribute about 15 per cent of the state and local taxes collected, as computed by the National Industrial Conference Board. Of an aggregate of about \$1,500,000,000 in federal and other governmental taxes paid by these groups, over \$800,000,000 went to state and local governments, chiefly in the form of property tax.

"The burden now imposed on business corporations by state and local taxes, as is clearly evident from this survey, is a heavy one," the Industrial Conference Board comments.

In the picture are presented varieties of general property tax, corporation income tax, capital stock tax, franchise and privilege taxes and various other special imposts, yet without semblance of uniformity among the states as to the number and kinds of taxes levied. In 1921, a year of economic depression, state

and local taxes on mercantile and manufacturing corporations exceeded their net income. So it is that Noel Sargent has voiced warning from the National Association of Manufacturers:

"The public, the workers and the legislators of this country should realize that large increases in federal and state taxes on industry will inevitably force industry either to increase prices all along the line, further curtail operations, or to curtail other expenses, mainly by reducing wage rates."

Of the total American tax bill of \$10,000,000,000 a year, 80 per cent is collected by (a) the Federal Government, (b) state governments and (c) 250 cities in the land, while 20 per cent is garnered by counties, cities, townships, school districts, road districts, levee districts and a score of other governmental agencies. As analyzed by Governor Franklin D. Roosevelt of New York, a citizen may live under at least 10 "layers" of government, starting with federal, state, county and city and embracing school district, fire district, lighting, sidewalk, sewer and other subdivisions.

"The citizen may not sense or realize it, but 10 sets of officials are appropriating funds, levying taxes and issuing bonds," as Governor Roosevelt well says.

Operation, maintenance and interest expenditures of the 48 states, alone, aggregate \$1,304,650,000 a year, to which the 16 Southern States contribute \$373,273,000, or 28.6 per cent. The Southern percentage in the remaining \$8,700,000,000 of the annual aggregate tax bill may be estimated at approximately the same figure. In view of the development of industry in the South, the subject of taxation becomes a matter of profound moment to the people of this section.

The cotton textile industry is of outstanding importance to the South, for generations the source of raw material for the mills in all sections and now also the major manufacturing area. The South produces 67 per cent of all the domestic cotton goods manufactured and in 1930 its mills consumed 5,051,000 bales, which is 73 per cent of all the cotton used in American mills. Yet, in one Southern State,

assessments on the cotton mills increased 20 per cent in 10 years, as compared with a decrease of 8 per cent in total assessments in the same period. The spindle increase in that period was 13 per cent, the increase in taxes paid by the mills was 90 per cent, and the increase in taxes per spindle was 40 per cent.

Warning of the economic danger to the South in this condition has recently been sounded. No industry will endure exorbitant taxation in comparison with fair taxes elsewhere, if other conditions and facilities are fairly equal in the lower-tax area.

The importance of the life insurance business to the South hardly can be pictured in cold figures. To say that industrial, ordinary and group life insurance in the South runs to \$21,226,000,000, or 20.5 per cent of the country's total, means much. Of equal importance, in its way, is the investment of hundreds of millions of dollars in the South by these insurance companies, with resultant stimulation of industrial and business and financial development. Yet special insurance taxes throughout the country in 1930 ran to virtually \$100,000,000, an increase of 8.4 per cent over the previous year and 89 per cent over 1922. These, we repeat, are special taxes, and include: Premium tax; company license tax; fee for filing annual statement; agent's license fees; publication fees; charge for company examination; local taxes other than property taxes; retaliatory taxes, fees, etc. Nearly all the states have so-called retaliatory insurance premium tax laws, through which companies domiciled in a state with a high tax rate are compelled to pay premium taxes at that rate in the other states where they do business, even though lower stipulated rates may be effective in the latter states.

Of \$100,000,000 which state and local governmental units collected from insurance companies in fiscal 1930, only 4.25 per cent was spent by the collectors in service to policyholders, and 95.75 per cent was used for other governmental purposes.

An amount equal to more than one-third of the railroads' net earnings in the first four months of this year has gone in taxes to various governmental agencies. As compared with net earnings, 37.73 cents out of each dollar of Class I roads went to various and varied governmental units. In 1930, the railroads paid \$368,000,000, or more than \$1,000,000 a day, in taxes, an increase of 1087 per cent in 40 years, or more than 11 times greater than the percentage increase in population. Since 1900, with a capital investment increase of 148 per cent, railroad taxes have showed a gain of more than 800 per cent.

The pernicious effects of extreme taxation on industry penetrate far beyond the business office of the plant. The worker's pay is shorn in proportionate measure. The investor's dividend is correspondingly restricted. The butcher, the baker and the candlestick maker see the dollar diverted from their tills and absorbed by insatiable governmental agencies of many kinds. Half the money now paid in taxes by industry each year would contribute largely to the reduction of unemployment.

Radical reform in expenditures by the Federal Gov-

ernment and the numerous "layers" of state and local governments has become absolutely imperative. Through this step alone can the oppressive tax burden be lightened, for the citizen, directly and indirectly. Through this step industry will be encouraged and inspired to develop in constructive fashion.

Decentralized Industry

INDUSTRY, headed for more than a century toward concentration in the cities, is turning back to the countryside. This is the statement of Martin J. Insull, president of the Middle West Utilities Company, who points out that industrial evolution of the nation need not be viewed with despair, for just as power changed the decentralized industry of 1731 into a centralized industry by 1831, so power in 1931 appears to be changing industry back into a decentralized structure. Mr. Insull says:

"The industry of the future is more likely to reinhabit the countryside, to possess all the advantages of power machinery without the disadvantages of congestion which has hitherto accompanied it."

The primary factor in this evolution is available dependable power. No longer are plants compelled to follow water-courses, nor need they be established close to a fuel supply. Adequate transportation of fuel and power has removed previous restrictions to the diffusion of manufacturing. Small industries now may be promoted far from centers of population, utilizing local resources and capital, and supplying local demands. That such plants are being established in small communities is evidence of the trend of industry away from large cities. Investors are looking for desirable locations in which to establish plants. To take the position that no industry can be secured at the present time is to be influenced by the depression and timidity which has gripped so large a part of our people.

There are many worthwhile concerns which would benefit the South, and Southern communities should make every effort to bring them in. There are many opportunities for establishing local plants by local people and capital; such industrial expansion should not be thwarted by the lassitude of civic or business organizations or by unwise taxation.

Throughout the South are to be found numerous opportunities for the small manufacturer. In food packing and processing, and in the making of wearing apparel and products for household use there will be found unlimited opportunities; for the South buys products to the amount of hundreds of millions of dollars annually, most of these supplies coming from other sections of the country. As a Texas business man, in discussing in the Texas Weekly the opportunities for developing small industries in East Texas, writes:

"Raw materials, labor, cheap power and fuel, transportation, marketing advantages and every needed requirement for successful industrial development are here. Some of the products that offer particular advantages

for manufacture in our town in a small way are: Chairs and furniture specialties; broom and axe handles and other lumber products; cooperage, boxes, baskets and crates; food products, including pickles, preserves, vinegar, canned fruits and vegetables; peanut and pecan products; clothing manufacturing, particularly work clothes and house dresses; miscellaneous products, including clay products, mixed feeds and specialties."

A few months ago in these columns the MANUFACTURERS RECORD pointed out a number of manufacturing opportunities that North Carolina offered as supplementing existing industries and to develop new lines to supply local needs. There are hundreds of available locations in the South and literally scores of products that could be advantageously made and distributed in growing trade territories. The MANUFACTURERS RECORD, as always, will be glad to cooperate in bringing communities and producers together in order to expand Southern industry.

Railroad Efficiency

SOME idea of the railroad efficiency in the present day and the resultant benefit to the South is gathered from reports from two typical Southern roads. In the operation of 1383 sections of main line through freight trains, the Norfolk & Western ran 87.9 per cent on time or better; 10.6 per cent somewhat late, and only 1.5 per cent more than three hours behindtime. The service of the Atlantic Coast Line is shown to have moved the Florida fruit and vegetable crops in fine fashion, with consequent reward in traffic income. The interests of the South and its railroads are intricately interwoven; each is contributory to the other's prosperity.

Easier Tax Payments

ONE way to ease the tax burden which has been tremendously heavy of late, occupying as a consequence a large share of public attention, is to adopt a plan frequently advocated by the MANUFACTURERS RECORD for paying taxes in installments.

Most cities and communities require that taxes be paid once a year. Where the sums are large, this has frequently placed a hardship on industries and individuals who have been forced to raise money when it was an especially difficult thing to do. Some states and some cities permit monthly, quarterly or semi-annual payments, with the result that there is offered not only a convenience and relief to taxpayers, but also the plan benefits local governments which, having their receipts divided evenly throughout the year, are not compelled to borrow as heavily as they sometimes have to do at certain periods in order to meet operating expenses.

There is so much to recommend the idea that one wonders why all states and communities have not passed legislation necessary to its adoption.

Facts Must Be Faced

THE question of wages, which is uppermost in the minds of industrialists, is a problem that is naturally of grave concern. Also it is a matter that unfortunately is approached by a certain type of politician, and by labor leaders, from a standpoint that is likely rather to upset the economic order than otherwise. A prominent steel manufacturer of the South writes us as follows:

"I think we are all in accord that the maintaining of wages would be an ideal thing if it did not run counter to our economic problems. As a matter of fact, all of us continued salaries and wages over a protracted period in the hope that things would right themselves, and only met the situation when we found there was nothing else to do if we were to stay in business. I think the rank and file of salaried people and so-called wage earners are perfectly reconciled to an adjustment.

"In our companies we have for some time past been working on the incentive bonus plan. Our weekly bonuses often exceed 26 per cent and the average for last year was 8.66 per cent. If our plants had been running to capacity I believe the average would have been something over 20 per cent. This is the bonus paid shop men and does not include salaried men in the office.

"I have read with a great deal of interest 'The Question of Wages' appearing in your issue of August 6. You are absolutely right in everything you have to say. The MANUFACTURERS RECORD, for some reason, seems to get into the economic problems on a sounder basis than its contemporaries. At any rate, you meet the situation squarely and that is half or more of success in any undertaking."

In reference to the last paragraph in the above, it has seemed to this publication that it was a time for plain speaking and we have been unable to see the ground upon which some of the prominent men of the country have stood, in their position against a reduction in wages when it seemed perfectly plain, with the reduction in living costs and the slack volume of business, that this was a step that had to be taken. Granted that every manufacturer of right mind will only resort to this disagreeable course after every practical means to avert it has been tried, there comes a time in the life of industry when it is necessary either to reduce the rate of pay or shut down the plant. It thus becomes an individual problem and it will be so settled without regard to what others say.

There is complaint about slack building and construction work, and notwithstanding the reduction in the price of materials in many cases to levels that have not been seen for years, the high price of union labor makes it impossible for the building contractor to offer a figure that will be an inducement to the owner who wants to build or add to his plant or to the man who would like to erect a new home. Railroad workers are now paid an average wage 125 per cent greater than they received in 1915, although prices of many commodities are down to pre-war levels.

It is a disagreeable thing for anybody to suggest reduction in income, but we are facing a condition of affairs in our economic life where it is well to recognize the truth and not expect to stop the depression by artificial means which have for a year and a half been tried under great urging and found wholly wanting. It does not get us anywhere to blink at facts however disagreeable they may be.

Going After

Latin-American Business

By
THOMAS EWING DABNEY
New Orleans

LATIN-AMERICAN countries have been increasing their export and import connections with Southern ports as these ports have developed greater shipping and other facilities to handle the business, and as they have been studying the particular needs to be met.

Eastern ports have long enjoyed an advantage over the South on shipping lines; also on banking and other connections. The South has been overcoming this handicap in recent years.

Two developments undertaken by New Orleans this year have been especially important. Results will fall principally into the New Orleans basket, but other ports should benefit in the general improvement that is sure to take place. These developments are:

1. The Commercial Affairs Committee of New Orleans sent Colonel James E. Edmonds to make a 10-week study of conditions and possibilities in Brazil and Argentina, the great East coast of South America, closer to New York, as the steamship plies, than to New Orleans, but with which New Orleans is able to compete on equal terms because of improved direct steamship service with the ports of those countries.

2. The Association of Commerce has sent Frank V. Dunham, its analyst, on a six-month study of conditions and possibilities in Mexico, Central America, Colombia, Venezuela and Panama, the Latin-American markets nearer at home and closer to New Orleans than they are to New York.

Colonel Edmonds has returned and written a voluminous report on the markets he surveyed. Mr. Dunham is still in the field; every week he sends in a report on some phase of the Latin-American economic situation, and on business possibilities.

Both of these unofficial ambassadors have created a very favorable impression in the countries they visited. Here were two agents who didn't have a thing to sell; they were there to find out how the interests they represented could best serve the Latin-American markets, finan-

cial terms, the merchandise itself, the packing, and so on.

Colonel Edmonds, in summarizing the general conclusions from his trip, said: "It is not a time to peddle goods. It is a most appropriate time for communities or industries, with a vital interest in foreign trade, to become acquainted with conditions; for them to ascertain what obstacles they must overcome in the line for which they are concerned; what standards they must attain in the combination of service—value—price." Further:

"Each community in the Mississippi Valley, and each class of commodities, will find its especial problems different

from other communities and other problems.

"No individual, and no government or quasi-public body, can tell a particular town, or a particular manufacturer in the Mississippi Valley that it or he must do so-and-so, to sell a community's production, or a special factory's production, either now or when times return to normal. First, to study the field, then stock up and solicit to create a market, then organize permanent representation and machinery for continued distribution in the country.

"The major obstacles to overcome to stimulate trade between the Mississippi Valley and Latin-America are fundamental and not superficial; the individual community and factory must thereafter meet and overcome problems individual to itself."

The colonel adds that the Argentine-Uruguay-Southern Brazil section will see, in the next 20 years, "the greatest development of buying power, the greatest movement of European immigration, the greatest uplift in the standard of living and in total volume of imports from the industrialized countries of the world." The same is true in greater or less degree of all Latin-America.

To illustrate what the development of transportation connections with a foreign market means in developing new business, take the Mississippi Shipping Company of New Orleans. Of this line, it may be said with all conservatism that it discovered the East coast of South America for the foreign trade of New Orleans. Until 1919, there was no regular steamship service between New Orleans and the East coast. Foreign ships brought coffee from Brazil to New Orleans, then loaded with grain, cotton and other raw products of the South for Europe, and carried European manufactured goods back to South America. In 1919, the Mississippi Shipping Company was organized, owned by Mississippi Valley interests. It began a regular service between New Orleans and Brazil. In 1920, the service was extended to the River Plate. The service was started with four steamers; it has since grown



Vessel Passing Through New Orleans
\$20,000,000 Industrial Canal

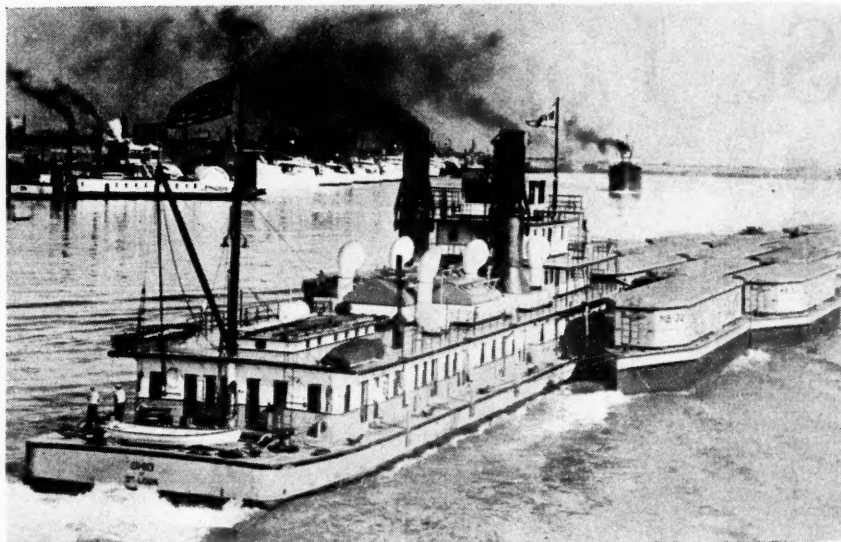
to 12, operating on a regular schedule, a minimum of three sailings a month. This steamship line has put Argentina, Uruguay and Brazil within the trade territory of New Orleans and the Mississippi Valley.

In a few weeks, this line will make another important expansion. It will add regular passenger service, and it will shorten the transportation time between New Orleans and the East coast. There will be no increase in rates. The importance of the passenger development can hardly be overestimated. The big importers and exporters of Latin-America will be able to come to New Orleans, and make the personal contacts that always play such an important part in all business relations.

The passenger travel to Latin-America in general out of New Orleans has shown an impressive development in recent years. A careful estimate puts the movement of persons through New Orleans to Latin-American countries at 2500 a year. Half of the southbound travelers are from the interior cities of the United States.

During the past 12 months, 19 steamship lines entering New Orleans have put on new services or they have expanded established services. Two new barge lines have also been established during this period. About 25 new ships have been added to existing lines. The Federal Barge Line, operating between New Orleans and Mississippi Valley points, has added heavily to its equipment so that the increasing tonnage can be carried. The Mississippi Valley Barge Line, privately owned, has begun to operate; also, a small barge line has been developed to move rice cargoes between New Orleans and Abbeville.

Within two years or so, the interior waterways will be opened to Chicago,



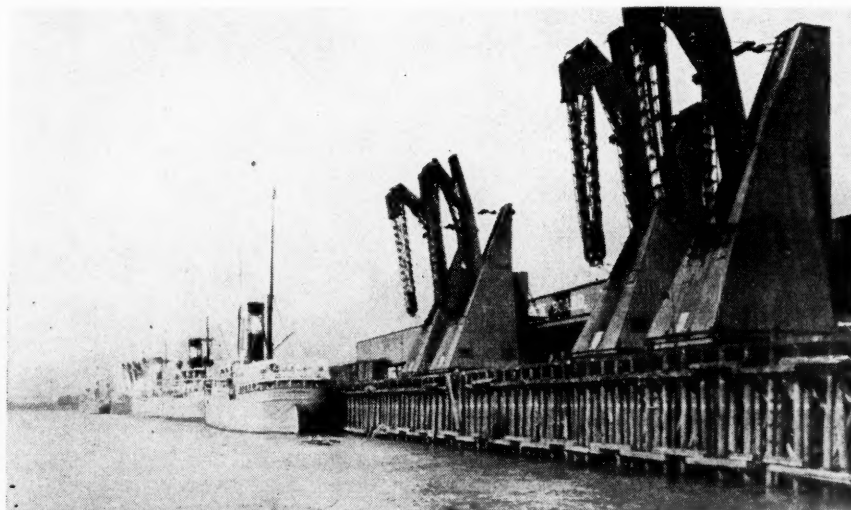
The Ohio, a Towboat of the Mississippi Valley Barge Line, on Its First Trip Last Year to New Orleans

Minneapolis and Kansas City. In 1933, Chicago will hold the Century-of-Progress World's Fair, and will emphasize Latin-American possibilities. In the latter part of this year, the Mississippi Valley Association, one of the impelling forces in the present development of inland waterways, is to organize a foreign trade division to afford to the affiliated commercial bodies of the Valley an agency to co-ordinate the work of their various foreign trade bureaus in directing and moulding public sentiment and political action toward policies which will aid foreign trade and to help in stimulating Mississippi Valley interest in Latin-American trade. These are developments that will help New Orleans and other Southern ports to get and hold the Latin-American trade. It is up to them to go after the business; it is waiting for them.

New Orleans has been smoothing out local obstacles. It has revised its port handling charges downward. It has improved its physical facilities. The Commercial Affairs Committee, created by Governor Long, has analyzed port conditions and it has exposed many sore spots; for these, it is now seeking a cure. New Orleans, magnificently located, has been under something of a disability because of state control and operation of the port facilities, for this has left the port without the active soliciting agents that ports have when the different railroads are fighting for business to keep their port facilities operating. A few years ago, the dock board of New Orleans did establish a bureau in Chicago, and this bureau has produced some good results, but less than one per cent of the port's receipts go toward the maintenance of this office. The railroads would spend five or six per cent to drive for new business, perhaps more. It is possible that New Orleans trade-solicitation agencies will be expanded in the near future. The necessity for greater emphasis on this work has been shown by the Commercial Affairs Committee. Neither New Orleans nor any other port can sit down today and say, "We have a grand location," and expect the plums to drop into its lap. You get business that you go after.

\$550,000 Federal Building

Durham, N. C.—Atwood and Weeks, Inc., Chapel Hill, N. C., have been commissioned by the Treasury Department, Jas. A. Wetmore, Acting Supervising Architect, Washington, as architects for the new \$550,000 post office building to be erected here. A site for the structure has been selected.



At These New Orleans Wharves, Vessels Receive Cargo Delivered by Train and by the Federal Barge Line

St. Louis Waterworks Unit

CONTRIBUTING 55,000,000 gallons of water daily toward the needs of the city of St. Louis, the new \$12,000,000 Howard Bend Station raises the capacity of the municipal water works system to a total expected to remain adequate until 1960. The station derives its name from its location on a stretch of the Missouri River known as Howard's Bend and is situated 37 miles from the confluence of the Missouri and Mississippi rivers. Bonds were voted for the work

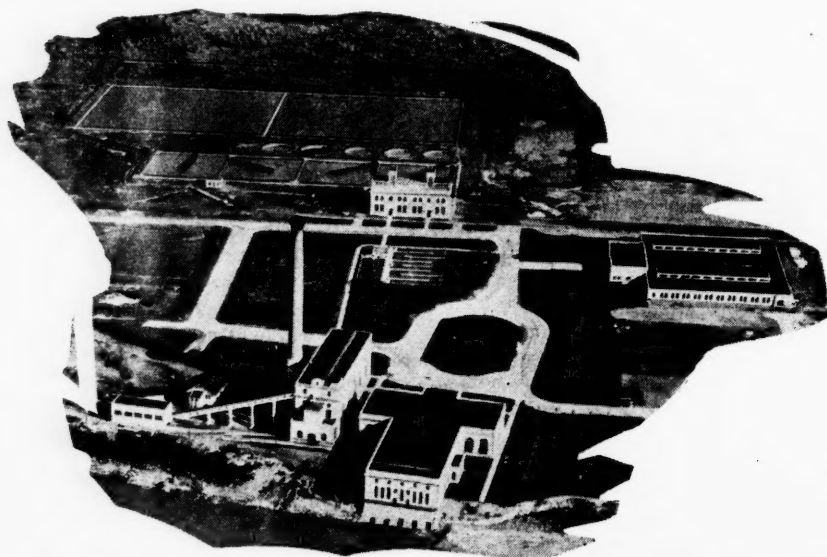
in 1923 and initial contracts were let shortly thereafter. Construction on the plant proper was started in February,

By
JOHN D. FLEMING

Chief Chemical Engineer,
Howard Bend Station

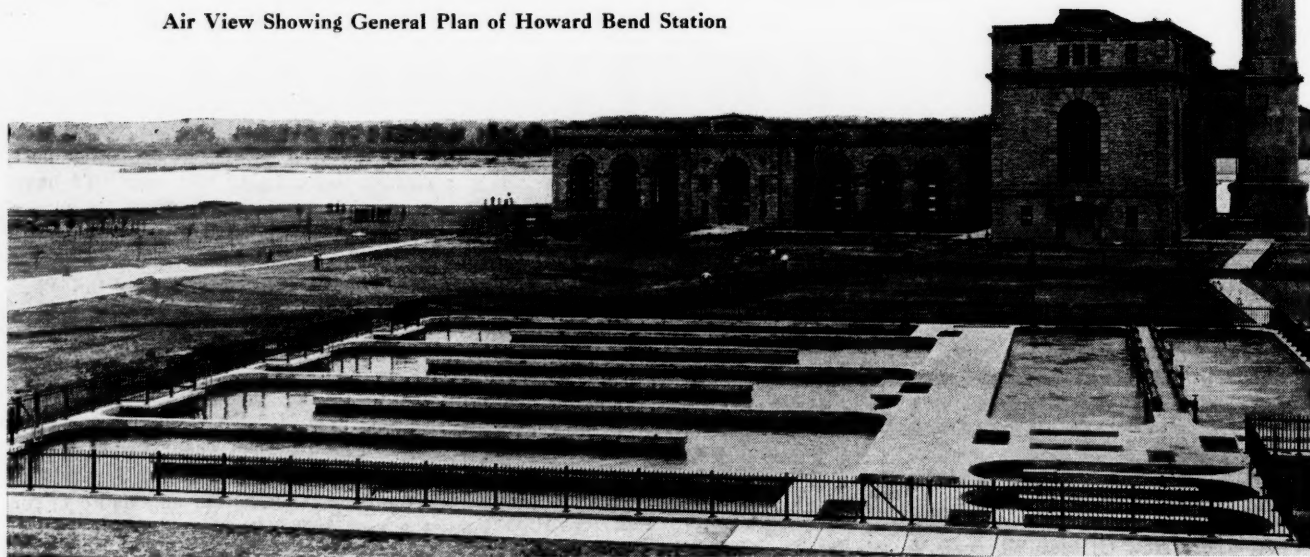
1929. The entire unit was put into continuous service approximately five years after the first contract was let.

The plant is a complete system. It includes the following: A shore intake equipped with traveling screens and built into the channel of the Missouri, the channel being confined by hurdle dikes and revetments above and below the intake; a low service pump pit house built integral with the intake; a high service pump station house; a boiler house connected by an inclined belt conveyor to a coal receiving and crushing station; a

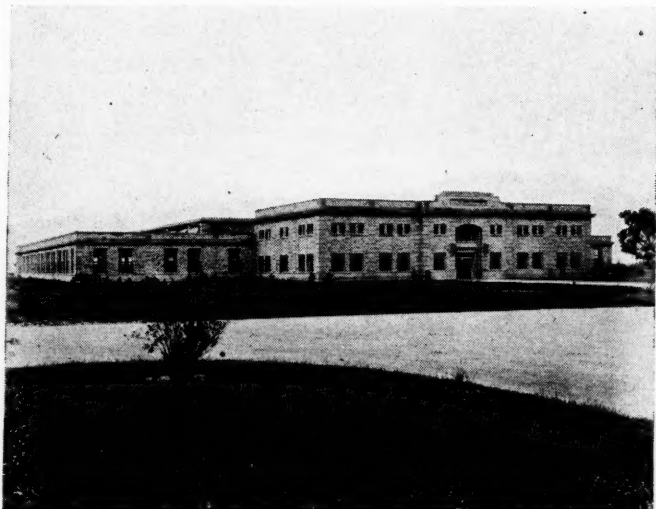


Air View Showing General Plan of Howard Bend Station

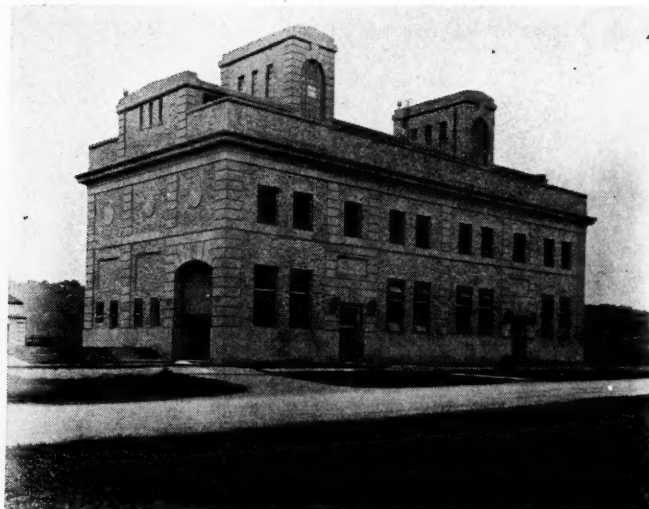
*This
275-Foot
Stack
Has
a
13-Foot
Bore*



Secondary Coagulation Basin and Carbonating Chamber in the Foreground



Head House and Filter Plant



Coagulant House

275-foot chimney of 13-foot bore, housing in its base a carbon dioxide plant; a garage; four 150-foot settling basins provided with mechanical means of continuously removing sludge therefrom; two sludge pump houses; a coagulant house for the storage of chemicals and their preparation for admixture with the water; mixing conduits and reaction chambers; two large coagulation-sedimentation basins; a carbonating chamber; filter plant; head house and chemical laboratory; covered clear water basin; and the 100,000,000 gallon covered storage reservoir at Stacy Park.

Besides these visible units there are two 36-inch trunk sewers; concrete conduits and piping connecting various units; the 60-inch steel pipe line from the plant to the city; a steam heating

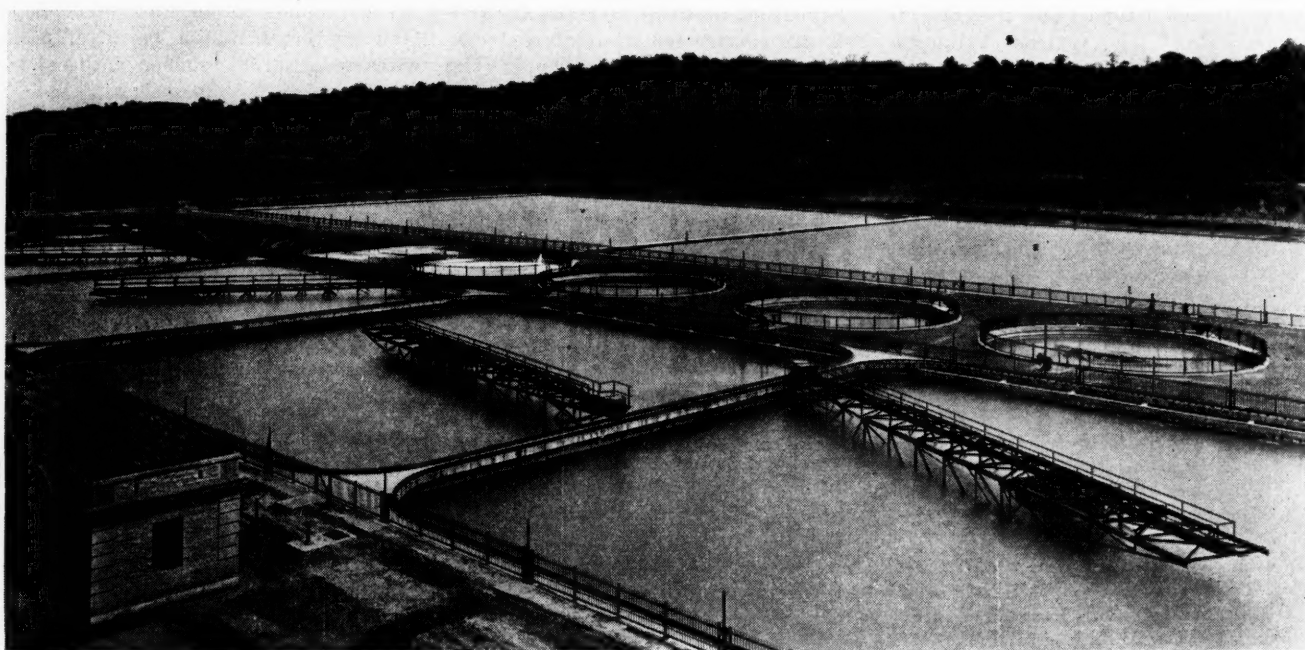
tunnel; a manifold chamber; and the railroad switch with three spur tracks. The plant site comprises 194.57 acres and an adjoining park, 46 acres. The department also owns a 150-foot right of way between the reservoir and the city.

The group of nine buildings and the chimney are built of native limestone, rubble masonry, a style known as "pitched-face broken ashlar at random," laid with one inch beds of cement mortar and pointed up to an inch and a quarter with white Medusa cement. Drab monotonous effect has been broken by the purposed use of stone from three or four quarries, ranging from white and gray through blue to yellow and brown. Window arches, sills, copings, cornices and quoins are of Bedford cut stone, and the base coarse is of gray granite cut

stone. Metal window frames and sash are used throughout.

A standard gauge railroad track enters the coagulant house, boiler house, coal receiving house and low service pump buildings through large openings equipped with electrically operated rolling steel doors.

The coagulant house and filter plant have concrete skeletons, the boiler house and pump house skeletons are of steel. Other buildings are of the simple unframed type. All foundations are of reinforced concrete, resting on precast square concrete piles, varying in length from 25 to 75 feet. Because of sandy nature of the soil, most of these longer piles were driven to rock with the aid of a water-jet. Intake and low service pit, high service pit and all basin walls are



General View of Primary Basins



View of the Missouri River Plant From the North Shore

enclosed with steel curtain walls of sheet steel piling. In general, interiors of the buildings are lined with gray enameled brick, to insure good light and cleanliness and not glaring to the eyes. The edge course around windows and pilasters is buff colored, floors are variously of ceramic tile, rubber tile, cement and asphalt. Excellent illumination of the semi-indirect and Holophane types is provided, and main entrances to all buildings have heavy ornamental bronze lighting fixtures bracketed to the walls.

Every building on the ground is heated by thermostatically controlled steam radiators with vacuum return, steam at 35 pounds pressure being bled from the turbines driving the generators and piped through a tunnel and trenches interconnecting the various buildings. Total radiation for the entire plant is

34,000 square feet. Over 200 electric motors ranging in size from 2 watt chronometer motors to 100 horsepower boiler feed pump motors, totaling 1200 horsepower, are connected to the power lines from the generators in the engine house. Twenty inter-communicating telephones and ten electric clocks, controlled by a master clock, are installed through the several buildings. The whole plant is abundantly supplied with automatic indicating and recording devices.

The stack has a square Bedford cut stone base up to the entrance way of the breeching, above which the exterior material is buff brick and of circular section.

All basins, reservoir, conduits and tunnels are constructed of reinforced concrete. Sluice gates of greater area than

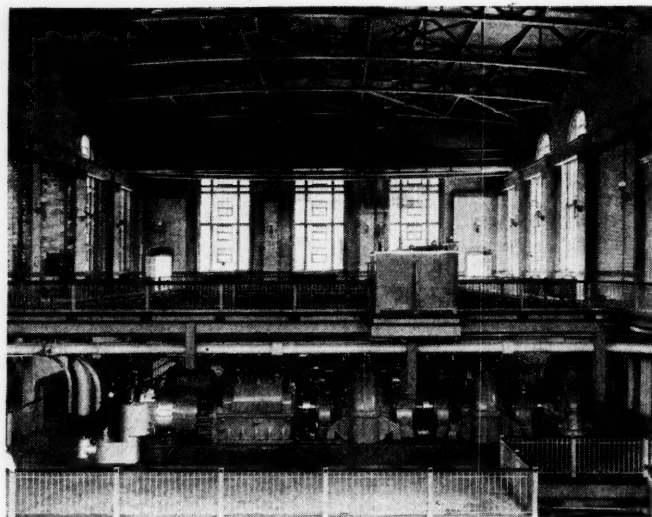
six square feet are either electrically or hydraulically operated.

Many modern devices have found employment in this plant, such as evaporators for boiler feed water, Goldberg check valves in the discharge lines of high service pumps, chromium-nickel-steel valves, furnace air preheaters, flue gas for carbonating water before filtering, mechanical basin cleaners, lead-lined pipes, valves and tanks, synchronous motor chronometers, pneumatic chemical conveyors, Duriron sink traps, chromium plated hardware and plumbing fixtures, rubber tiled floors, electric refrigerators, hard rubber pipe, lead covered sheet metal, Monel metal, Carborundum brick and many others of equal interest.

The grounds around the plant have been converted into a beautiful park, with trees, shrubs, sunken gardens, la-



Operating Aisle in Filter Plant



High Service Pump

goons and roadways and an outdoor lighting system.

Firms Supplying Principal Materials

Air Preheaters—Air Preheater Corporation, Wellsville, N. Y.
Cast Iron Pipe and Fittings, Highway Buses—American Car & Foundry Co., New York
Automatic Valves—Automatic Cone Valve Co., Chicago
Oil Piping, Mechanical Equipment, Coagulant House—Edw. P. Ambler Co., St. Louis
Boiler Settings, 275-foot Chimney—John V. Boland Construction Co., St. Louis
Filter Controllers, Venturi Meters—Builders Iron Foundry, Providence, R. I.
Oil Tanks and Filters—Bowser Co., Ft. Wayne, Ind.
Ornamental Iron Railings in Filter Plant—City Foundry Co., St. Louis
Stokers—Combustion Engineering Co., New York
Intake Screens—Chain Belt Co., Milwaukee
Feed Water Heaters—Cochrane Co., Philadelphia
Insulation—Philip Carey Co., Cincinnati
Electric Sump Pumps—Dayton-Dowd Co., Quincy, Ill.
High Service Pumps, Low Service Pumps—Delavan Steam Turbine Co., Trenton
Dorr Clarifiers and Sludge Pumps—The Dorr Co., New York, Chicago, Denver
High and Low Pressure Engine Houses, Boiler and Coal Receiving Houses, Filter and Head House Superstructure—Dunham Construction Co., St. Louis
Road, Intake and Engine Pits, Stacy Park Reservoir, Substructures Engine Houses, Boiler House, Smoke Stack and Coal Receiving House, Covered Clear Water Basin, Manifold Chamber and Pump Discharge Lines—Frazier-Davis Construction Co., St. Louis
Wiring Chemical Scales, Wiring Machine Shop, Coagulant House—Griner Electric Co., St. Louis
Steel Pipe Line, 16.4 miles long, 60-in. diameter—Bill Hayes, Inc., Detroit
Breeching and Air Ducts—Hemler Co., Chicago
Boilers—Heine Boiler Co., St. Louis
Chemical Conveyor—Holly Pneumatic Systems, Inc., New York
Railway Switches, Two Miles of Macadam Road—Industrial Track and Construction Co., St. Louis
Hurdle Dikes and Revetment—Kansas City Bridge Co., Kansas City, Mo.
Wiring Dorr Clarifiers, Pumps and Gates—Koenigsmann Electric Co., St. Louis
Filter Operating Tables—F. B. Leopold, Inc., Pittsburgh, Pa.
Filter Plant and Head House Substructure, Foundation Piles Coag. House—McCormack-Coombs Const. Co., St. Louis
Two Sludge Pump Houses—MacDonald Construction Co., St. Louis
Grading—James T. McMahon Contracting Co., St. Louis
Intake Room Crane—Manning-Maxwell-Moore Co., New York
Cranes—Milwaukee Electric Crane & Mfg. Co., Milwaukee, Wis.
Hydraulic Valves—Michigan Valve & Foundry Co., Detroit
Steam and Auxiliary Piping and Equipment, Carbonating Plant—Midwest Piping & Supply Co., St. Louis
Additional Electric Work—Mound City Electric Eng. Co., St. Louis
Steam T. Generator—Moore Steam Turbine Co., Wellsville, N. Y.
Filter Plant Sewer, Primary Basin System, Secondary Coagulation Basin, Erection of Dorr Clarifiers, Steam Heating Tunnel and Trenches—Missouri Engineering & Contracting Co., St. Louis
Gas Engine Driven Generator—Murch Bros. Const. Co., St. Louis
Coal Scales, Chemical Scales—Richardson Scale Co., Clinton, N. J.
Iron Fence around open basins and mixing chambers—Rogers Schmitt Wire & Iron Co., St. Louis
Coal and Ash Handling System, Magnetic Separator—Stephens-Adamson Co., Aurora, Ill.
Architects—Study & Farrar, St. Louis
Forced and Induced Draft Fans—Sturtevant Co., Boston, Mass.
Operating Floors, Stairs and Railings in Pump Houses—Stupp Bros. Bridge & Iron Co., St. Louis
Floors in Pump Houses—The Terrazzo Co., Inc., St. Louis
Gasoline Switching Locomotives—Vulcan Iron Works, Wilkes-Barre, Pa.
Condenser Equipment for Turbine Generator—Worthington Pump & Machinery Corp., New York
Switchboard—Wurdack Electric Co., St. Louis

The Smith Cotton Plan

HON. ELLISON D. SMITH, member of the United States Senate from South Carolina and ranking Democrat on the Senate Committee on Agriculture and Forestry as well as on the Senate Committee on Manufactures, in a special statement to the MANUFACTURERS RECORD, concerning his plan to reduce the cotton surplus by advancing credit to cotton farmers to enable them to withhold part of this year's crop, and to secure pledges from cotton farmers that they will reduce proportionately their acreage next year, writes:

"Mass meetings are being held in many counties of South Carolina to consider my plan, and three counties have gone on record as endorsing it. I am receiving daily letters from farmers all over South Carolina stating their willingness to sign an iron-bound contract not to plant next year if my plan can be put into operation. We are now endeavoring to communicate with all cotton-growing states."

Senator Smith's proposal is as follows:

"In the fall of last year I suggested a plan of removing the surplus of cotton in such a manner as to benefit the cotton grower. Senators and Congressmen from the South favored it but the Farm Board failed to accept and place the plan into operation. It was this:

"That the Farm Board purchase the surplus at prevailing prices and store it on the condition that the cotton producers would agree to sign legally enforceable contracts that, if this cotton were re-sold to them at the purchase price on a year's time with no charges except reasonable interest, storage and insurance, they would agree not to plant any cotton on land owned or controlled by them. Of course the contract would not permit the producer or landowner to have allocated to him by the board any more cotton than he actually produced.

"The conditions now are more urgent for such a plan than they were a year ago. If the Farm Board or a corporation of financiers would agree to take eight or nine million bales of actual spot cotton off the market at present prices provided the producers would sign contracts legally enforceable that they will not plant next year, the situation would be at once relieved. According to statisticians, we have practically a two-year supply of American cotton on hand now and in sight. If this surplus is thrown on the market now it not only ruins the price as it has done for this year, but will leave a surplus destructive of cotton prices for many years to come; but if the Farm Board or a holding company can take this cotton on the agreement that it will not be duplicated and the producers be given the equity in it as above indicated it will be equivalent to

the producer making a crop or having a crop already made and in the warehouse without the cost of production and with no costs except the purchase price plus overhead charges. I do not think it would take long to start the machinery in motion. Every banker, not only in the South, but in this country, ought to join heartily in this proposition. Of course everything would depend on the signing of the contracts and the nature of the contract. The contract should be of such a nature as to make it absolutely binding and enforceable. It should stipulate that this cotton is to be held until the fall of 1932.

"If the plan were carried into operation it would automatically dispose of the surplus within a year, give the cotton producers a year of diversified farming without cotton and an opportunity of recouping some of the losses that are now inevitable."

Coal Stocks Low

"With the growing use of improved equipment for the smokeless coal and more efficient combustion of high volatile coal, new markets will eventually be created," says Newell G. Alford, consulting mining engineer of Pittsburgh. In the August "Mining Congress Journal," Mr. Alford reviews current trends in the bituminous industry and states that freight rate barriers reserve the steam coal markets of the Dakotas, Nebraska and Kansas for local and western coals, which with coals from Arkansas and Oklahoma contend for the steam coal territory in western Iowa and Missouri. Further Mr. Alford says:

"While coal consumption has been declining generally through the past 18 months, it has not dwindled as fast as coal in storage. Coal stocks are at a record low point for our national capacity. Since 1929 the hectic development of natural gas, oil and water power has more than saturated their normal demand. One hundred and twenty-five million tons of national power coal markets were lost to these sources of energy in 1929, based on the total use of energy of that year, amounting to 19 per cent of that year's total potential coal production, if these additional demands had been available to coal. There is a very serious indirect loss to coal through the decrease in railroad freight, as tremendous quantities of oil are delivered in pipe lines instead of tank cars. Industrially, coal consumption is slightly higher than production. The prospect of an increase in freight rates is a favorable factor to more than seasonal improvement in the coal industry the last quarter of this year."

Cotton Can Stay King

In view of the present cotton situation, an editorial published a few weeks ago by the Charlotte Observer is especially timely in its comment on the agricultural system under which the South operates. In the points raised, it strikes at the very heart of the difficulties facing the cotton farmers. The editorial is here reprinted in full.

Carl Williams, member of the Federal Farm Board, speaking over the radio for "we of the South," maintained that cotton can remain King, and it will be possible for farmers in the South to depend upon it for prosperity—but with a string of "ifs." One of these is that the "one crop system" must be abandoned, and there is none to say nay to that. The Southern farmers must meet the changing world conditions squarely and make certain changes in their farming programs which they have always known they ought to make, but must be driven to it. Taking up the several problems the Southern farmer must solve, Mr. Williams sets out the first as the present production credit system. A second is the existing system of renting land. A third is the many millions of acres of worn-out soil. A fourth thing is the number of people who get most of their home living out of tin cans and paper sacks from the grocery store. A fifth thing is an improvement in the quality and length of fiber of the American cotton crop. A sixth thing is a revision of the system of marketing cotton to the point where farmers themselves will get the greatest possible per cent of the price that the consumer pays. A seventh thing is the development of new uses and the extension of old uses for cotton.

So long as the 85 per cent of all the cotton produced in the South is grown on borrowed money, the terms on which that money can be borrowed can help or hurt the farmer. Most bankers, land owners, and merchants lend money to grow cotton, but for few, if any other farming purposes. They like that method because cotton is the only crop in the world which can neither be eaten, stolen, sold, nor given away without the banker knowing all about it. It is, therefore, good security for a loan about half the time; that is, whenever cotton prices are high enough to pay the debt.

For the most part, however, farmers cannot borrow money to raise feed crops or keep livestock or build up the soil with legumes or raise their own food for their own families. The result is they must raise cotton to pay the debt and to buy the things they need and therefore the South remains largely a one-crop country. A great many farmers have to pinch their pennies and banks and credit merchants often go broke in spite of the fact that they charge interest rates running all the way from 10 to 20 per cent. The present credit system adds enormously to the cost of raising cotton.

A new system or a change in the old one is needed to the degree that no matter what the price of cotton is, the farmer shall be encouraged to farm for

a living first and after that, and only after that, to raise cotton. Credit in the cotton belt was heavily over-extended during the period of high cotton prices from 1922 to 1929.

It is Mr. Williams' pointed suggestion that farmers would have been better off if they had taken some of the safeguards they are now taking before the drop in cotton prices. King Cotton should take out a permanent insurance policy by building the soil, developing sidelines, growing abundant home supplies and following these practices permanently instead of taking them up after periods of depression.

But he is not through yet. He says the same fundamental trouble is found in the land rent system. Landlords want cotton raised on their farms because their share can be sold for cash at once to pay taxes and to put in the bank. The land owner fails to realize that the pressure he puts on his tenant to raise more and more cotton makes and keeps the tenant poor, and that continuous cropping to cotton makes and keeps the land poor, so that after a while the farm is no good, nobody will buy it, and the land owner has lost his capital investment in trying to get a temporary profit. In many a Southern county an average of one quarter section farm a week goes back to brush because it is no longer good enough to be farmed. Tenants, especially croppers, also want to specialize on cotton because of its ready salability. The tenant has no inducement to help build up the soil under present tenure contracts.

And finally, Mr. Williams knows that a good price does not necessarily mean a good profit. He knows that a real profit is the difference between the cost and the selling price. He does not believe that any farmer can ever be prosperous, no matter what his cotton sells for, so long as he pays high interest rates, buys food and feed at the store, farms wornout land, raises more than the people of the world are willing to buy, fails to build up soil fertility, sticks to a one-crop system, and lets the character and quality of his crop run down so that foreign countries can come in and successfully sell their cotton in competition.

Prosperity for the cotton South does not depend upon any one thing by itself. It depends on all of these things. Cotton can remain King in the South to the degree that we can improve all these things. Mr. Williams believes that cotton will remain King, because he has complete faith in the willingness and ability of Southern people to tackle and successfully conquer any problem when they know what it is.

Urges Peach Growers Organize

The Georgia peach crop probably is one of the easiest of all farm crops to organize because of the comparatively compact and localized area of its production. Yet F. H. Abbott, of Waycross, secretary of the Georgia State Chamber of Commerce says that thousands of bushels of choice Georgia peaches are rotting on the trees because the growers have failed to organize. Mr. Abbott states that the peach-freezing process worked out last year by W. R. Tucker, general agricultural agent of the Atlanta, Birmingham and Coast Railroad, has proved entirely feasible from a commercial standpoint and that this process if put into general commercial operation will consume 2000 to 5000 cars each season. At present only one or two such plants have been established in the state.

"The Federal Farm Board stood ready this year to furnish funds to organize growers and help them establish peach-freezing and other processing plants as a means of preparing either for immediate distribution or for cold storage of whatever surplus might be profitably marketed in the raw state," Mr. Abbott said. "Money for this purpose could have been obtained by the growers, at low interest rates, had they been organized."

Mr. Abbott expressed the opinion that no alternative is left to growers if they expect to stay in business but to organize for next year's crop, utilize government machinery and establish additional freezing plants. The present plight is due not to alleged exorbitant freight rates, he added, revision of such rates, if needed, could be worked out satisfactorily both to the growers and the railroads.

Florida Pineapple Industry

Lake Worth, Fla.—The Florida pineapple industry, which has not been developed commercially to a great extent, is expected to be stimulated by the activities of the Florida Pineapple Products Corporation, H. G. Basford, president, now engaged in setting 300,000 pineapple slips in the vicinity of Lake Worth, with a view to planting additional acreage later. After the production of the first fruit, the corporation plans to extend its operations, according to Mr. Basford, until it has 500 acres or more devoted to pineapple growing in this section. Slips being set are described as the Red Spanish variety, hardy and of unusually good growth. An advantage the Florida pineapple grower has is the possibility of producing ten crops from one planting of slips before renewing.

Signs of Better Business

THE WHEELING (W. VA.) STRUCTURAL STEEL Co.'s plant has reopened after an idleness of six months, to fill orders for 3000 tons of fabricated steel; 150 men will be employed initially.

THE BRANDON CORPORATION'S Woodruff, S. C., plant which discontinued night work about six months ago, has gone on full day and night time, giving employment to about 350 additional operatives.

THE TENNESSEE FURNITURE CORPORATION, Chattanooga, is negotiating a contract to furnish \$500,000 worth of refrigerator boxes to a nationally-known concern. It is now building an addition to its enameling plant.

THE DIANA furniture plant at Toccoa, Ga., purchased by Forrest Additon, Flowery Branch, Ga., will be rebuilt and new machinery will be installed.

MORGANTOWN, W. VA.—Three glass plants closed for some time are now operating. The Mississippi Glass Company reopened with 125 employees; extensive improvements have been completed and additional renovations are under way. The Morgantown Glass Works has made repairs to its factory since it closed in June and has sufficient orders in hand to work steadily through August with about 250 men. The Seneca Glass Company is operating with 175 men on the payroll.

THE PIEDMONT SHIRT COMPANY, which recently purchased the American Shirt Factory, Greenville, S. C., has opened the plant with 100 persons engaged in the production of work shirts at the rate of 100 dozen daily. Also, the company is running its new plant at capacity, employing 150 persons in the production of about 125 dozen shirts daily. The two plants at present rate of operation will consume about 2,000,000 yards of cloth annually.

THE WINCHESTER (VA.) WOOLEN MILLS COMPANY has started weaving cloth at the plant formerly occupied by the Arthur G. Jones Woollen Company. The mill and equipment have been completely renovated.

The MANUFACTURERS RECORD will be glad to receive additional items of news similar to those here published.

THE PERFECTION OAK HARDWOOD FLOORING COMPANY, Jena, La., has started operation of its Trout Mill, employing 50 men in the production of about 25,000 feet of flooring daily.

THE MASSACHUSETTS KNITTING MILLS, Columbia, Tenn., will erect a drying plant for which machinery will be moved from Philadelphia.

THE SOMERSET MILLS, Roxboro, N. C., have completed an addition and are installing machinery from a Philadelphia plant, for the manufacture of turkish towels, washcloths and bathmats.

THE MAYFIELD WOOLEN MILLS, Mayfield, Ky., is installing machinery removed from the plant of the Curlee Clothing Co., at St. Louis, Mo., and 400 to 500 additional workers will be employed.

BROOKS BROS., INC., Greenville, S. C., will shortly be operating its newly established tapestry mill at capacity, with 75 persons employed.

BLUE RIDGE GLASS CORPORATION, Kingsport, Tenn., closed since April is preparing to resume production August 24 when its normal force of 150 to 200 workers will be employed.

BUSINESS has about reached the bottom of the cycle from the standpoint of sales and collections throughout the country as indicated in the survey for July in 95 of the country's leading trade centers and published by the National Association of Credit Men.

KNOXVILLE, TENN., reports an encouraging outlook in its territory as fall ap-

proaches, with several new business firms being established and general speeding up of production in several lines of industry.

ARKANSAS wholesalers are finding difficulty in supplying canning and preserving supplies, writes the Arkansas State Chamber of Commerce. Hundreds of carloads of glass jars, cans and tops have been distributed throughout the state. In some sections more materials have been sold this season than in the past 10 years combined.

St. Louis reports improvement in general business. Wholesalers are receiving good orders and collections are better.

BEDFORD-JOHNSON Co., Lynchburg, Va., in adding 150 to 200 operators announces orders sufficient to keep 700 workers busy the remainder of the year.

BALDWIN LOCOMOTIVE WORKS, with unfilled orders July 31 amounting to \$9,902,000, shows a gain of over \$1,000,000 in unfilled orders since the first of the year.

PELZER MILLS in the Anderson (S. C.) section which have been on a three-day basis are now operating full day-time shifts.

MAHONING VALLEY STEEL Co., resumes work on a 75 per-cent basis at its Niles (O.) plant to take care of increased demand for steel sheets.

\$2,000,000 Federal Building Bids

Miami, Fla.—The Treasury Department, Jas. A. Wetmore, Acting Supervising Architect, Washington, opens bids September 15 for construction, except excavation, foundation, elevators, etc., of a Federal building here estimated to cost \$2,080,000. The structure will be three stories and basement, faced with stone. Phineas E. Paist and Harold D. Stewart are the architects, and L. Murry Dixon, associate architect, all of Miami and Coral Gables. Maurice H. Connell is the mechanical engineer and Harvey Baxter, structural engineer, both of Miami.

Cooperative Research in Industry and Agriculture

THE census of 1930 showed that slightly over a million people are gainfully employed in Alabama; almost half of these are engaged in agriculture. A substantial percentage of the other half are directly dependent on their trade with farmers. This should be sufficient proof that one cannot prosper without the other, and as former vice-president of the Alabama Industrial Development Board I will now give you a few instances in which agriculture and industry have cooperated in Alabama:

The cooperation of the United States Bureau of Standards, the Alabama Polytechnic Institute, the University of Alabama and Swann Research in erection and operation of a semi-commercial experimental plant for the manufacture of xylose from cottonseed hull bran. Xylose is a five-carbon sugar which some believe the human system will not assimilate. It has been known to the chemists for many years but largely as a curiosity, with no practical use. If during the long tests now being conducted by the medical profession, no injurious effects are found, then xylose can be used in making a candy that is non-fattening, or can be mixed with caramel, chocolate or nuts to obtain candy with less calories. This will assist the fairer sex to reduce. Likewise, it will be a great blessing to those suffering with diabetes.

Based on the experimental work conducted at Anniston, we have hopes that we can take the cottonseed hull bran, of little value today, and not only convert it into xylose, a non-fattening sugar, but also take the spent bran and use it as a filler in plastics as a substitute for wood flour. The plastics industry will show a tremendous growth in the next ten years, thereby increasing the markets for approximately half the product of the cottonseed hull bran in the course of its manufacture into xylose.

Dr. M. F. Jackson has done valuable work in assisting the farmer to find better markets for his products. Among

*Extracts from an address
by Theodore Swann of Bir-
mingham, before the annual
meeting of the Alabama
Farm Bureau, at Auburn.*

other achievements his pioneer work in cold storage for Alabama eggs was outstanding. George Gordon Crawford, former president of the Tennessee Coal, Iron and Railroad Company and a member of the Alabama Industrial Development Board, heartily sponsored the policy of Alabama industries buying from Alabama farmers and his work has been carried on by H. C. Ryding who succeeded Mr. Crawford as president of the T. C. I. and also as a member of the Alabama Industrial Development Board.

The work of Dr. Knapp's committee on the improvement of cotton staple, assisted by Benjamin Russell, another member of the Alabama Industrial Development Board, and Donald Comer, who may be classed both as an agriculturist and an industrialist.

Rural Electrification

Alabama pioneered the way in the extension of rural electrification. This work originally was sponsored by Thomas W. Martin, a member of the Alabama Industrial Development Board, and has since been carried on by Mr. Easter cooperating with Auburn.

There are many other ways in which cooperation and research can bring Agriculture and Industry closer together, and if only a few of the products now

under investigation are successful it will not be long before many of the raw materials for the manufacture of important chemicals will come from the farmer.

As an illustration of what I mean by this statement I select at random levulose. Levulose, like xylose, is also a special kind of sugar, sometimes called fruit sugar. It is one and a half times sweeter than cane sugar and is known to be more easily digested. It is being made in small quantities by extraction from the root of the Jerusalem artichoke which can be grown with ease in the light soils of the South. The planting, cultivation and harvesting of artichokes may be done almost entirely by mechanical equipment. Successful equipment has been designed and operated and is ready for production by the farm equipment manufacturers.

Starch From Sweet Potatoes

Hundreds of millions of pounds of starch are being made annually in this country from white potatoes, wheat and corn. The sweet potato has never been used extensively for this purpose, but it has been found that it yields a starch that is apparently of special value for use in textile manufacturing and other purposes.

The United States Bureau of Standards is working on this problem in cooperation with the Alabama Polytechnic Institute, and if this research is successful it will mean a very much wider market for the Southern sweet potato.

Alpha-Cellulose From Sugar Cane Bagasse

A special variety of cellulose, known as alpha-cellulose is needed to make rayon, lacquers and many other widely used cellulose products. Heretofore cotton linters and wood have been the chief sources of this material, but research has found that it can be cheaply made

from bagasse, thus creating another use for this largely wasted material.

White Paper From Southern Pines

Until very recently, the several varieties of Southern pines were considered unsuitable as a source of pulp for making white paper because it was assumed that their wood contained too much resin. Chemists led by Dr. Charles H. Herty, now associated with the Alabama Polytechnic Institute, have discovered, however, that at least in the case of the slash pine the resin exists in objectionable quantities only in the heart-wood of old trees. Young trees have no heart-wood, and their wood for pulp making purposes compares very favorably with that of Northern trees now used.

Trees suitable for paper-making can be grown in the South in less than 20 years, whereas a growth of 35 to 50 years is required in the North. It has been prophesied by Dr. Herty that millions of acres of now wasted lands in the South will be used to produce regular crops of pulp-making pine trees, that the center of the wood pulp industry will be shifted from Canada and New England to the South, and that the cost of newsprint will be greatly reduced.

The bleaching of Southern kraft paper is an absolute necessity for the success of the paper industry in the South. Successful research and experimental work has been finished and one mill in North Carolina is already bleaching Southern paper. At the University of Alabama the United States Bureau of Standards is working on the basic chemical reactions involved in the making of kraft paper from Alabama pines.

The successful operation of the farm or group of farms presents no different problems from those presented by the operation of the small factory or a group of factories or any other industrial enterprise. Farms as well as manufacturing plants must be properly financed, production costs must be kept in line with competition and the marketing carried out on sound principles. In solving its problems, industry has found that research pays. As an example, our own company has spent in Alabama during the last five years more than \$1,000,000 in research. We would not have spent this money had we not been convinced it would bring us an adequate return.

Agriculture, like industry, must depend on research if progress is to be made. The work of Dr. Funchess on the five experimental farms located in various soil regions of Alabama, in addition to the Experiment Station at Auburn, will prove to be of great benefit to you as individual farmers and to the state as a whole. In determining the condi-

tions surrounding the successful raising of profitable crops, Dr. Funchess is applying the same principles as would be applied were he conducting the same research work for industry.

In the conduct of our chemical business we have a commercial research department whose duty it is to determine if there will be a market for any product the manufacture of which is being considered. If this department finds either that there is a market or that one can be developed the problem is then up to research. After the product has passed the research department it goes to the development department for the pilot plant operation and then to the regular manufacturing department and naturally is turned over to the sales department as a routine matter in selling.

This is only a brief outline of the

work now in progress. If the farmers of Alabama, if the farmers of the United States are to meet the competitive conditions that now exist throughout the world, and which will continue to exist, this work must go forward at an accelerated speed. The farmer, like the industrialist, must take advantage of every opportunity. We industrial chemists are not only searching out better ways for making established products but also for new and better products. Nature is the greatest chemical laboratory in existence and you, the farmers, are the managers of that plant. The expense of constant research is too great for you to carry as individuals but you can accomplish much by cooperation. Your objective and our objective are constantly becoming more closely related and dependent one upon the other.

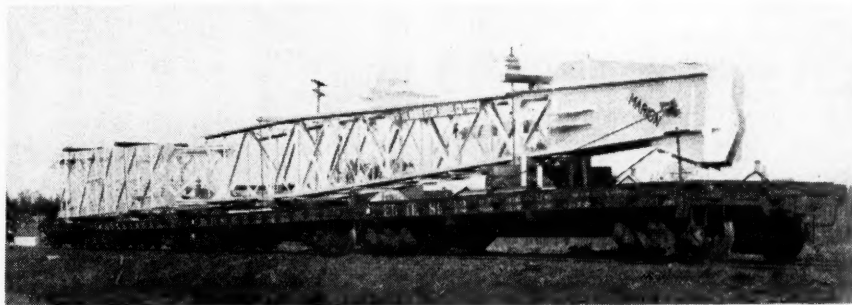
Aluminum Boom for Dragline Excavator

An aluminum alloy boom for use on a giant dragline excavator was shipped recently by the Marion Steam Shovel Company, Marion, Ohio, to the McWilliams Dredging Company of Chicago, one of the well-known firms engaged in flood-control construction work in the Mississippi Valley. The boom will be used on a Marion type 5241 dragline, and is said to be the first ever built for a machine of this size. It is said to be less than half the weight of booms normally used for this class of work.

Three distinct advantages are claimed for the aluminum alloy boom on excavators engaged in flood control work: First, the working weight of machines is of prime importance because of the

character of terrain to be covered, making it possible for an excavator so equipped to operate where footing is very unstable; second, range of reach of the excavator is a principal factor and by constructing the boom of aluminum it can be made longer, thus eliminating to a large extent the need for rehandling materials; third, with an aluminum alloy boom the excavator can be built with the same working weight and range as with a normal boom but with a much larger bucket, making it capable of turning out a greater yardage without any increase in gross power or labor expense.

The aluminum alloy boom was made in two sections and shipped on four standard flat cars.



Showing Method of Shipping the Boom on Four Flat Cars

\$66,000,000 for Southern Construction in July

CONTRACTS awarded in July for construction, engineering and building projects in the 16 Southern states totalled \$66,633,000, according to a compilation of reports published in the DAILY CONSTRUCTION BULLETIN and in the construction columns of the MANUFACTURERS RECORD. In the corresponding month of last year awards in the same territory totalled \$103,549,500, and in July, 1929, awards amounted to \$64,263,500.

To properly appraise the situation it must be remembered that building costs this year are far below 1929 and 1930 figures; and moreover, in June and July of 1930 several major pipe line projects, costing \$10,000,000 to \$40,000,000 each, were let to contract. The July, 1930, figure representing awards is the third highest of which we have record.

For last month the awards for association and fraternal structures; bank and office buildings; churches; city, county, government and state projects; dwellings; miscellaneous construction and building enterprises and road, paving and bridge work, all show an increase in valuation over awards for each of the respective classifications recorded in June. The increase in awards for dwellings was particularly noteworthy, the total valuation exceeding \$3,319,000 compared with \$2,183,000 representing June awards. Awards for miscellaneous projects, such as wharves, piers, garages, power plants and a diversity of undertakings not reported under the other classifications, amounted to \$20,480,000 compared with the June total of \$11,585,000. An increase of close to \$2,000,000 in road, paving and bridge contracts over the June figure was also a feature of the July activity.

On many sides there are encouraging

SUMMARY OF SOUTHERN ACTIVITY IN BUILDING AND INDUSTRY JULY, 1931

	Contracts Awarded	Projects Proposed
Apartment houses and hotels	\$1,919,000	\$1,804,000
Association and fraternal	210,000	107,000
Bank and office buildings	2,972,000	695,000
Church buildings	290,000	810,000
City, county, government and state projects	8,942,000	6,118,000
Dwellings	3,319,000	1,219,000
Miscellaneous	20,480,000	21,037,000
Roads, paving and bridges	22,930,000	37,743,000
School buildings	3,409,000	6,828,000
Sewers, drainage and waterworks	1,617,000	3,409,000
Store buildings	545,000	277,000
Total	\$66,633,000	\$80,047,000
July, 1930	103,549,500	118,548,000
July, 1929	64,263,500	
July, 1928	73,320,500	
July, 1927	74,576,000	

signs. Numerous small industrial plants are being modernized by the installation of new equipment and general rearrangements in layout, by the installation of modern lighting, heating and ventilating systems, etc. Factory additions under way are greater in number than for many months, and new machinery purchases are mounting. Much encouragement is to be gathered from the fact that stocks in many lines have been greatly depleted, and that as a result the very simple, though apparently little understood law of supply and demand, promises shortly to vigorously assert itself.

\$1,500,000 Hospital Foundation

Hot Springs National Park, Ark.—Bids will be opened September 10 by the Constructing Quartermaster of the Army and Navy General Hospital here, for the

foundations of a \$1,500,000 hospital building. The work will include demolition, excavation, filling, grading, concrete, stone and plumbing work.

1500-Mile Aerial Survey

Vicksburg, Miss.—In connection with flood control work on the lower Mississippi River, the U. S. District Engineer, Vicksburg, has commissioned the Brown-Park Aero Co., Louisville, Ky., to carry out an aerial survey involving 1500 miles. This company employs two pilots, two aerial photographers and three laboratory men, with Challenger-Robin, two-passenger closed planes. Work is carried on at an altitude of 14,000 feet. The company recently completed a 900-mile survey of the Wabash, White and Eel River basins under a contract with the U. S. Engineer at Louisville.

\$624,000,000 Value of Southern Mine and Quarry Output

The last general census of mines and quarries in the United States showed a total production value of \$2,392,000,000 in 1929. The census covered enterprises whose annual output was valued at over \$2500 and excluded gas and oil well operations embraced in the previous census of 1920. Such enterprises in the 16 Southern States in 1929 produced over \$624,000,000, or more than 26 per cent of the total output of all mines and quarries in the United States.

Listed for the South as a whole were 3193 enterprises representing 3682 individual mines and quarries. Supplies, materials, fuel and purchased current to the amount of \$113,000,000 were bought. More than 2,091,000 horsepower was required for the operation of the mines and quarries of the South. There were 16,081 salaried officials and employes who received \$37,600,000 for their services and 269,900 wage earners (average number) who were paid \$305,800,000 during the year.

SUMMARY OF PRODUCING MINES AND QUARRIES, BY STATES, IN THE SOUTH, 1929

	Number Enterprises	Number Mines and Quarries	Cost of Materials, Fuel and Power	Value Products	Horsepower Installed
Alabama	222	255	\$11,229,000	\$54,666,000	270,615
Arkansas	128	137	1,704,000	11,368,000	37,624
Florida	66	74	3,875,000	14,015,000	110,291
Georgia	79	86	1,790,000	9,611,000	35,515
Kentucky	551	629	16,099,000	103,850,000	317,973
La., Miss., Dist. Col., Del.* }	36	40	1,044,000	3,408,000	21,657
Maryland	112	130	2,988,000	11,122,000	34,006
Missouri	408	439	9,095,000	47,276,000	165,368
North Carolina	118	129	1,587,000	5,981,000	22,348
Oklahoma	217	281	7,624,000	33,139,000	106,345
South Carolina	33	35	716,000	3,093,000	18,470
Tennessee	160	189	4,413,000	24,186,000	86,257
Texas	133	159	10,324,000	49,758,000	82,914
Virginia	190	208	5,556,000	29,540,000	111,921
West Virginia	740	891	34,544,000	223,931,000	670,544
South	3,193	3,682	\$113,088,000	\$624,944,000	2,091,848
United States	10,135	11,602	\$414,446,896	\$2,392,831,187	7,514,843

* Louisiana, Mississippi, District of Columbia and Delaware combined to avoid disclosures of data for individual enterprises.

Roanoke Worsts the Depression

MANY factors have contributed to the amelioration of effects of the depression in Roanoke. To what degree the present situation is due to its youth as a city, its geographical location and trade territory would be hard to determine. That it is largely a result of the foresight and broadminded principles of the large public utility and manufacturing companies is generally recognized. Mention has been made in the *MANUFACTURERS RECORD* of various construction and production contracts let by the Norfolk & Western Railway Company and others in the past 18 months. No mention has been made—and it would not have been possible to do so—of the number of manufacturing companies which have produced for stock, brought out new lines, gone farther afield for contracts, and done everything in their power to stabilize employment.

Other factors which have contributed to the comparatively favorable situation in Roanoke are the completion of the Virginian Railway bridge over the Kanawha River at Deepwater which provides physical connection with the New York Central; erection of the new Federal Building in the city; reconstruction of one hotel and providing additional rooms for another; the erection of new garages, store buildings, and handsome residences, and the construction of sewers and streets by the city.

The business indicator charts show that the effects of the depression were not felt in Roanoke until about the middle of 1930. A comparison of bank debts to individual accounts; postal receipts; consumption of electric energy; value of building permits, and express

shipments for the first six months of 1931 and similar periods in 1928, 1929 and 1930 shows the business that has been done in the city. It is a fact that more than one business house had a larger turnover in 1930 than in 1929. Also, some of the important industries are working more hours and turning out more production at this time than they did one year ago. It is undoubtedly true that more efficient and effective work is being done by many employees than has been the case for years past.

Highway construction in the immediate vicinity in the past year has resulted in large funds passing through Roanoke hands. Two Lee Highway contracts which are nearing completion will cost in the neighborhood of \$216,132. On July 1 funds from the Highway Commission became available for two other contracts in this section to involve \$350,000. Recent newspaper stories have told that the Telephone Company is spending about \$65,000 in the city extending underground conduit and cables and aerial cables; that the Norfolk and Western Railway, which has recently completed a new office building costing \$800,000, will spend \$21,500 additional in improving, renovating and changing

its old office building; of the erection of a new neighborhood picture house in one of the suburbs of the city and of the award of contract for a new parochial school, etc. There are thus abundant indications that organizations and business men in Roanoke are taking advantage of this period of low building costs to do essential construction. Almost daily new industrial operations and plant expansions are reported from various points in the trade territory of the city.

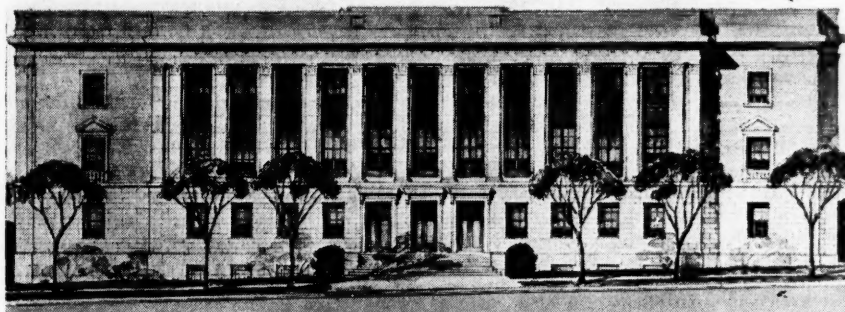
This trade territory is nearly as large as the combined states of Massachusetts, Connecticut and Rhode Island, and it was severely affected by the drought in 1930. Approximately half of it returned crops of 40 per cent or less. Bumper crops, however, are reported for 1931. Prices may not be as satisfactory as could be wished, but there will be money to spend where money was needed last year. Roanoke's trade territory, while largely agricultural, is industrial as well. Comprising twenty-five counties in Virginia, three counties in North Carolina and two in West Virginia, its agricultural and industrial products are well diversified.

There are many opportunities for industries, particularly those employing women, and with the expansion that invariably follows a depression the attention which this region and its natural resources have drawn from many executives will result in increased industrial development. It has been said that 50 per cent of the population of Virginia now resides west of the north and south line formed by the Southern Railway through Lynchburg. A comparison of statistics published by the Census Bureau of manufacturing plants in Roanoke County and the other three leading industrial counties in the state shows that Roanoke stands first in the matter of increased worth due to manufacture, in industrial payroll per capita, in industrial wages per wage earner, and a close second in industrial wage earners per thousand population.

These facts also have had their influence on the effects of the depression at Roanoke. Roanoke is not the home of cheap labor. Low manufacturing costs, due to intelligent and loyal workmen, are expected and obtained by the industries of the city.

By
H. E. MCCRERY

Manager, Industrial Department,
Chamber of Commerce, Roanoke, Va.



Roanoke's New Federal Building

LETTERS FROM OUR READERS

"Refuse Russia's Products"

Southern Pine Association
New Orleans, La.,
Office of President.

Clarks, La.

Editor Manufacturers Record:

I want to commend you for the editorial on the cover page of your July 30 issue, "Refuse Russia's Products."

The more one thinks over this question the more inevitable is the conclusion stated in the last sentence of your editorial: "It is impossible to prevent unfair competition against our foreign trade, but we can prevent the invasion of our domestic markets by an embargo on Russian products."

If the United States, Canada, England, France, Germany and Italy should decline to extend to Russia the credit needed to carry out the Soviet's so-called "Five-Year Program," how could they carry it out? With success it is their avowed purpose to destroy our form of Government. Their economic invasion of our country and our foreign markets is inseparably connected with their political invasion of it.

I would like to see our country have the courage to take the action taken by Canada in this matter, which is advocated also in your editorial.

C. C. SHEPPARD, President.

Against Freight Rate Increase

N. C. Williamson,
Contractor and Planter.

Lake Providence, La.

Editor Manufacturers Record:

Agriculture, including agricultural manufactures, furnishes about 15 per cent of the tonnage and 25 per cent of the revenues for railroads. You will note the percentage of revenues is higher than percentage of tonnage.

With the index figure of farm prices for all commodities at 80 and for cotton 65, based on the five-year average, 1909-1914, it is beyond all reason even to think of adding to freight rates. In addition, commodity prices are lowest in history at the farms and the farmer's dollar, expressed in exchange value of his commodities for the things he must buy, is worth 61 cents; i. e., the ratio of prices received to prices paid by the farmers of America is represented by the figure 61. See July bulletin "The Agricultural Situation" issued by Bureau of Agricultural Economics, U. S. Department of Agriculture. The farmer's taxes have climbed from 100, taking the same five-year average as above, to 266 for 1930. This year will likely show another increase unless the decline in farm values should offset the increased rate of taxation.

While it takes every other bushel of wheat to transport the Middle Western crop to the Atlantic Seaboard, and more than this to bring oats from Western Texas farms to Lake Providence, La.,

we hear arguments that a 15 per cent increase in freight rates will start the country on the road to prosperity and will turn the tide of business back to normal.

N. C. WILLIAMSON.

Research Aids Virginia's

Development

The Research Service, Inc.
Washington, D. C.

Editor Manufacturers Record:

It has been our privilege to participate to a small extent in the development of the South. Four years ago we made a comprehensive study of the water resources of Virginia and an abstract of this work was given in your columns. At present we are engaged in two interesting projects in the state. One concerns the improvement of the water supply of Harrisonburg; the other is a project, cooperating with the Virginia Public Service and the Virginia Electric & Power Company, in a study of agricultural conditions in their territories, and especially with relation to improvement of these conditions and extension of rural electrification.

We are much pleased to note that communities in Virginia are giving more attention to securing suitable water supplies. Water is a basic resource of life and progress. The development of these communities will largely depend on having a suitable supply of water, pure, clear and potable.

Virginia, like many other states, has fallen into an agricultural rut. Various sections have become one-crop—cotton, corn, or tobacco—with the result that the soil is rapidly being run out and communities are suffering from the economic situation. We believe these communities must be educated to the importance of rotation of crops, the regeneration of the soil, and the use of such crops as will bring direct cash income and make it possible to tie in with industry. Just now we are pointing out the possibilities of the soybean. We believe this crop has a great future in Virginia.

A. B. McDANIEL, Sec.-Treas.

In Appreciation

J. J. Lawton,
President & General Manager
Hartsville Oil Mill, Hartsville, S. C.
Timmonsville Oil Co., Timmonsville, S. C.
Palmetto Oil Co., Bishopville, S. C.
Greenville Cotton Oil Mill, Inc., Greenville, S. C.

Hartsville, S. C.

Editor Manufacturers Record:

I would hardly know how to do without the MANUFACTURERS RECORD, as I regard it as the greatest paper in its line published in the South.

I desire, in enclosing my check for \$10 for two years' subscription, to wish you the greatest prosperity in the work which you are doing.

J. J. LAWTON, President.

As to Railroad Rates

E. K. Campbell Heating Co.
Kansas City, Mo.

Memphis, Tenn.

Editor Manufacturers Record:

I look upon your magazine as one of the most honestly edited publications in the United States. But, as you accept criticism, I am making one or two suggestions for your consideration.

I note that the president of an insurance company has come out with a big stick, and is holding it over the Interstate Commerce Commission and the bankers and men who control the railroads in this country. He is demanding an increase of freight rates, or they will refuse to loan them any more money or buy any more of their securities. The effect of this may be far-reaching, in that it may eventually cause the receivership of a large percentage of the railroads, which will mean a continuation of the hard times in this country.

This all leads up to the open corporation laws, which have allowed the jugglery and overbonding of nearly all the corporations. On July 1, 1922, the Illinois Central put out an article entitled, "The Illinois Central System Dollar, Where It Comes From and Where It Goes." This gives the proportions of various expenditures out of this dollar—transportation, maintenance of track, etc. Near the bottom, it says: "Interest on bonds and other interest charges, 6.85 cents." The next line shows dividends on capital stock, 4.48 cents. Next it says balance available for enlarging and improvements, 1.60 cents. This totals up and shows a net earning of this property of 12.93 cents. This statement was made on the 1921 business, which was not a very heavy business year, and the statement would, of course, vary each year, but it shows an enormous ratio of earnings. At the time this was published, the United States was excited over the fact that Swift & Co. were earning 2½ cents out of every dollar.

All articles today go on the assumption that our railroads are efficiently managed. The power given the Interstate Commerce Commission by the war measures, and the curtailment of the power of the officials by the bankers who control the railroads, have increased the cost of their operation from 10 per cent to 15 per cent.

When a man can truck 12,400 pounds of freight from Kansas City to Nashville for \$40 worth of gas and oil, sending a couple of men along with it and saving the railroad fare with it, what do they expect to gain by the raising of rates? They are going at this in the same manner as when they allowed the buses to absorb practically all of their short-haul passenger business in the United States.

A. Q. CAMPBELL.

IRON, STEEL AND METAL MARKET

Better Feeling at Birmingham

Birmingham, Ala., August 17—[Special.]—While actual bookings of business in iron and steel do not reflect any change in general conditions, assertions of better feeling are heard on all sides. Manufacturing interests of the district are establishing additional sales agencies and looking forward to a wider distribution of their products. Ten blast furnaces are in operation, six on foundry, three on basic and one on special brand, but readjustment in the output is scheduled for the near future, the make exceeding the shipments. Surplus stock is still under the maximum tonnage reached a year or two since. It is also known that melters who several weeks ago dipped into the iron market, opportunity presenting itself, have specified against a very short amount of the total purchased and this is being carried.

Base price of pig iron remains firm, \$12, No. 2 foundry.

Cast iron pressure pipe shops are operating still around 50 per cent capacity. Several specifications were in sight for distribution during this month with bids having been opened. Practically all the business is from the middle-West and extreme West. Further development by municipalities and other interests is anticipated in which cast iron pipe will be an essential. Shipments recently from this district included a little tonnage for Honolulu and the Panama Canal zone. Washington state has also been in the market.

Several foundries and machine shops have maintained a little activity but as for many months now buy only in limited quantities.

Eleven out of 23 open hearth furnaces have been maintained on ingot production. Gulf States Steel has held to three out of six, obtaining basic iron from the Republic Steel Corporation. Tennessee Coal, Iron & Railroad Company has kept eight out of 17 open hearths in active operation.

Sheet and plate mills of the district produce actively while mention is again made of cotton ties, shipment of which will start by the end of the present month, anticipation being that a considerable tonnage will be required this year with hold-over stock comparatively light. Agricultural interests have not been indicating interest in steel recently, trade in that direction being in line with general conditions.

Coal production has reached its lowest level in years. Estimate is that year's

tonnage will be much under that of 1930.

Scrap iron and steel is unchanged.

Quotations for pig iron and iron and steel scrap in the Birmingham district are as follows:

PIG IRON

No. 2 foundry, 1.75 to 2.25 per cent silicon, \$12.00 to \$13.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$12.50 to \$13.50; iron of 2.75 to 3.25 per cent silicon, \$13.00 to \$14.00; iron of 3.25 to 3.75 per cent silicon, \$14.50 to \$15.00.

OLD MATERIAL

Steel rails	\$10.00 to	\$11.00
Steel axles	12.00 to	12.50
Iron axles	12.00 to	12.50
Heavy melting steel.....	8.00 to	9.00
Stove plate	7.00 to	8.00
No. 1 cast.....	9.00 to	10.00
No. 1 railroad wrought.....	8.00 to	8.50
Car wheels	8.00 to	9.00
Tramcar wheels	8.00 to	9.00
Machine turnings	4.50 to	5.50
Cast-iron borings	4.50 to	5.50
Rails for re-rolling.....	10.25 to	11.00

Steel Slightly More Active

Pittsburgh, August 17—[Special.]—Steel has grown a trifle more active, ingot production last week being at about 33 per cent against about 32 per cent the week before. Increases were chiefly in rail production on belated releases, rails involved in annual purchases and which ordinarily would have been taken out in the first half of the year. The Gary rail mill has a better operation, apparently assured for a couple months, while the Edgar Thomson rail mill, in the Pittsburgh district, resumed last week after a fortnight's idleness, but at only a limited proportion of capacity.

Class I railroads made a new low record by installing only 603 new freight cars in June, against between 1000 and 2000 a month in the first half of the year, 78,393 in all of 1930 and 89,194 in all of 1929. Car buying has been light because the railroads do not need even all the cars they have with the reduced traffic. Granting of a general advance in freight rates would not lead to much railroad buying involving steel in the near future, the advance being wanted to restore a portion of ordinary earnings and protect railroad credit for the future. At the outset the great majority in the steel trade favored the rate advance, but there are not so many now, and the Youngstown steel district is strongly opposed. It has been estimated that a horizontal advance of 15 per cent would add about a dollar a ton to the cost of making steel.

The distribution of steel at the present time is a very unusual one. Steel is

not nearly as inactive as would be suggested by a 33 per cent operating rate or by reports of inactivity in various large consuming lines, the virtual absence of freight car building being a conspicuous illustration. Numerous small users of steel, while taking less steel than two or three years ago, are doing very well relative to some of the large consumers. The automobile industry is taking somewhat less than its usual proportion, for the time of year, of the amount of steel that is made, fabricated structural work is also running a little light, the farm implement industry has been doing very little although it is in line for a seasonal resumption of activity later on, and there is almost no oil and gas well drilling, for reasons well known.

All these deficiencies in the proportion of steel taken must be made up by excesses elsewhere, and the excesses are in numerous small lines which cannot be studied individually. Road building is fairly active but it does not take a great deal of steel, there being a moderate tonnage for bridges, culverts and with some roads the center division. As to comparison with other depressions, steel ingots are now being produced at a little over 70,000 tons a day, just a shade under the lowest rate of 1924 and double the lowest rate of 1921. The difference is that in those dips in steel production consumers had stocks, which they were liquidating, while lately there have been no stocks. There was a relatively quick recovery from the 1921 depression, while in the spring of 1923 production reached a new record high, and there are reminders now that some observers in 1921 had a notion recovery would require ten years or thereabouts.

Tin plate production dropped last week to about 50 per cent of capacity against 65 per cent at the close of June. Fruit and vegetable packs are not proving at all heavy and general line tin plate demand has been somewhat poor all this year. Tin plate is still by far the most active finished steel product but next month the case is likely to be different, through increases in other lines and a little farther falling off in tin plate, of seasonal character.

Finished steel prices are holding well all along the line. Steel company earnings are either very light or have been replaced by losses and there is a determined effort to hold prices, while buyers as a rule are quite content and prefer the present steady market to the various irregularities there were for many months.

HIGHWAYS AND MOTOR TRANSPORT

Urges Transportation Study

Calling attention to the unprecedented increase in motor vehicle transportation in the last two years, and the mounting taxes levied to create and maintain highways for the purpose, the Alexandria (Va.) Chamber of Commerce has passed resolutions urging intensive study of the transportation situation in the state. It was asserted that as approximately 99 per cent of motor vehicular traffic requires the construction of roads and bridges capable of sustaining only 12,000 pounds, truck and load, the people are justified in protesting the levying of higher taxes to construct highways and bridges for accommodation of the remaining one per cent, consisting of buses and trucks, whose dimensions and weights are constantly increasing, with a consequent increase of hazard to highway users, and

WHEREAS: Aside from the fact that a condition exists which is plainly out of hand, as far as State and Federal supervision is concerned, the people, obliged to use the highways built for and by themselves, have been forced to realize that the real problem confronting them today is one that affects the people at large, not alone in matters of taxes, but of "Safety First," the risk to life and limb; and

WHEREAS: The railroads of the nation, which are not only the arteries through which the commercial life-blood of the nation flows, but are also the backbone of the nation in national defence, are being adversely affected in their revenues by a competition which at present is subject to little if any control in the public interest, and none at all of the kind to which the railroads conform, State and Interstate, therefore, be it

RESOLVED: That the Alexandria Chamber of Commerce believes that the

time has arrived to recognize the fact that with respect of our highways, state and interstate, an intolerable condition prevails, a condition which requires prompt and careful study and analysis, and prompt correction to the end that equal justice may be done to every interest involved, and that, above all, the people of the country may enjoy the benefit and pleasure of their highways in personal comfort and safety, and free from excessive taxation to pay for what they neither need nor want; and be it further

RESOLVED: That the Alexandria Chamber of Commerce call upon our state and national representatives in Virginia to study and to lend their earnest efforts at the proper times and in their various tribunals, to a fair, impartial and just solution of this pressing problem, predicated upon the principal factor involved; viz., the rights of the people to enjoy in comfort and safety their own highways; and to that end, that a copy of these resolutions be mailed to each representative and to every Chamber of Commerce in the State of Virginia, with request that similar action be taken.

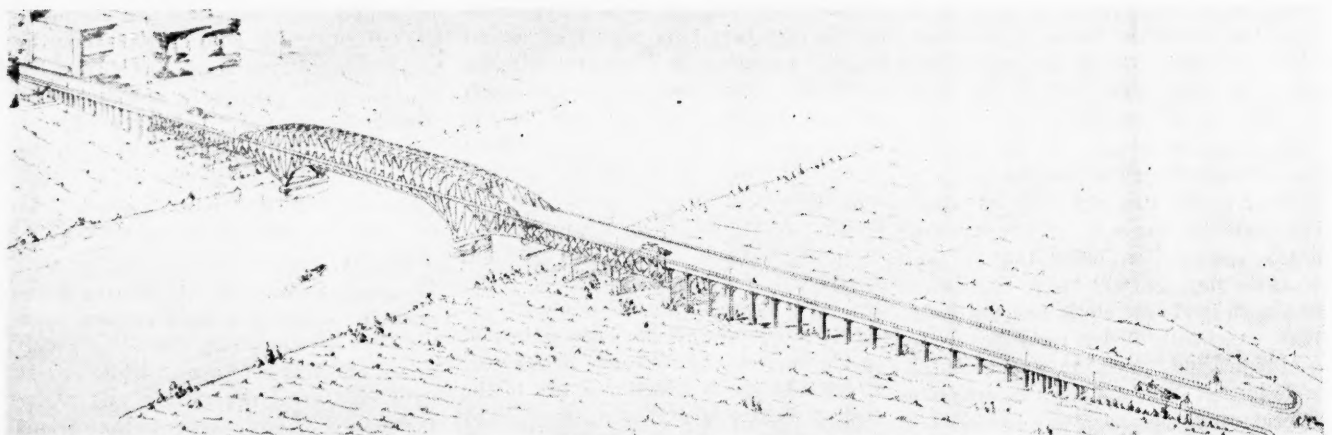
Alabama Taxes "Common Carrier" Motor Vehicles

The Alabama Motor Carrier Act of 1931, which went into effect on July 19, provides that transportation companies doing business in the state and subject to the control and jurisdiction of the Alabama Public Service Commission shall pay a mileage tax to the state as a contribution to the maintenance, repair and policing of its public highways. For each mile actually operated within the state over state highways a tax of one-fourth cent per mile is to be paid on all passenger vehicles with a

seating capacity of 16 passengers or less; one-half cent on vehicles with seating capacity of not less than 17 and not over 20; three-fourths cent on vehicles with a seating capacity exceeding 20 and not exceeding 25; and one cent per mile on vehicles with a seating capacity exceeding 25. A mileage tax of one-half cent per mile must be paid on all vehicles transporting property with a rated carrying capacity of two tons or more but less than three; one cent per mile for vehicles with a rated carrying capacity of three tons or more, but less than four tons, and one and one-half cents per mile for vehicles with a rated carrying capacity of four tons, but less than five; two cents per mile for vehicles with a rated carrying capacity of five tons or more. It is unlawful for any vehicle subject to the provisions to be operated on the public highways with a load greater than 50 per cent in excess of its rated carrying capacity. Each trailer attached to a motor vehicle and used for transporting property will be deemed a motor propelled vehicle, and the mileage tax will be computed upon the basis of the rated carrying capacity and miles operated.

\$3,500,000 Road Bids

Columbia, S. C.—Bids will be opened August 25 by the South Carolina State Highway Department for construction of 28 road and bridge projects estimated to cost \$3,500,000. The work will be located in 28 counties and will cover a total of 127 miles of concrete paving, 81 miles of bituminous surfacing, 33 miles of earth roads, and 9 bridge projects.



Red River Bridge Under Construction at Shreveport, La.

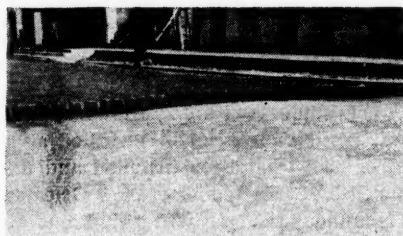
Reinforced Brick Pavement

In an effort to reduce the cost of brick paving the Southern Brick and Tile Company, Macon, Ga., have produced a specially designed brick, which in conjunction with 4- by 4-inch welded steel mesh forms a reinforced brick slab. In construction of this pavement, designated as Brixteel Paving, the brick of hard burned clay are $3\frac{1}{2}$ by $7\frac{1}{2}$ by $4\frac{1}{2}$ inches, grooved at the top and bottom to fit the



Laying the Brick in and on Bottom Reinforcing

mesh reinforcing and effecting automatic $\frac{1}{2}$ -inch spacing which permits the use of common labor in the operation of laying, thus making for economy. Wider mortar joints, made possible by the spacing mesh, permit the use of stiffer and stronger grout than in ordinary paving practice, it is said, while the use of clay brick with absorption of 5 to 12 per cent removes excess water from the cement grout, restores the proper water-cement ratio and produces a strong mortar grout. Top reinforcing is possible with the grooved brick unit and is recommended by the company for heavy duty paving, while for residential driveways, walls, porch slabs or basement floors no



Pavement Grouted and Complete

top reinforcing is used, and the slab when grouted is said to present the appearance of $3\frac{1}{2}$ - by $3\frac{1}{2}$ -inch tile. Specifications for the reinforcing steel call for a welded wire fabric of No. 8 gauge steel, welded on 4-inch centers and made from cold drawn steel wire.

Procedure for construction, as outlined

in specifications, includes the rolling or tamping of the sub-grade to a true grade and a bed of 1:3 cement and sand, dry, rolled with a hand roller and struck off to a true depth of $\frac{1}{2}$ inch. Reinforcing is placed on the bed with sheets or rolls lapped, and brick placed on the fabric and within the meshes, care being taken to push the brick against the same relative mesh corners to obtain uniform $\frac{1}{2}$ -inch spacing. Brick are laid with three joints broken, as in ordinary paving, and top reinforcing placed and pinned down where necessary, so that in no place will reinforcing be within $\frac{1}{2}$ inch of top of the slab. Longitudinal, $\frac{1}{2}$ -inch expansion joints are provided along each curb, or wherever abutting

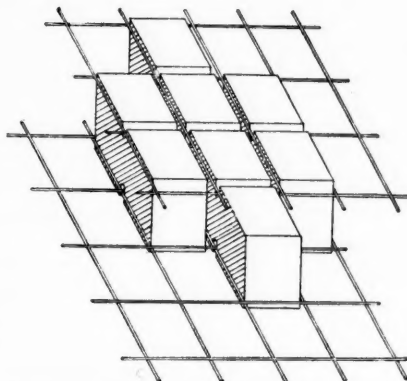


Diagram Showing Method of Reinforcing the Brick With Steel Mesh

concrete or other existing paving or foundations occur. One-half inch transverse joints are also provided for each 100 lineal feet of pavement. Portland cement grout composed of one part cement to three parts of sand is applied in two applications, the first of such consistency that it will flow freely and may be swept into the joints, after which the slab is rolled with a 500-pound hand roller until brick are well bedded and irregularities smoothed. The second application, of the consistency of cream, is squeezed over the pavement, leaving the joints well filled. When the grout has



Top Reinforcing in Place

taken its initial set, the slab is sprinkled lightly to remove excessive grout from the brick surface, or rubbed clean with wet burlap or similar material. After



Transverse View

grouting is complete, sand or sacks are spread over the pavement and kept wet for five days. Where desirable a slab may be cleaned or scrubbed with a solution of muriatic acid in water of a strength not to exceed one-tenth of one per cent by volume of acid, and where specially clean surfaces are desired the top surface of the slab may be painted with hot paraffin or soft soap prior to grouting.

5000 Miles Farm-to-Market Roads

Oklahoma City, Okla.—The State Highway Commission has appointed Claude Sale, division engineer at Woodward, as engineer in charge of the Commission's program for the construction of 5000 miles of farm-to-market roads. Survey work will be started at once, it is said, and a general engineering plan formulated. Construction will be carried out under the supervision of the State Highway Commission, and costs borne by the state and counties.

\$20,000,000 FOR ROADS

Virginia May Borrow \$1,000,000 to Keep Workers Employed

Richmond, Va.—During the fiscal year ended July 1, 1931, Virginia expended \$20,041,727 for road construction and maintenance. This is said to have been the largest yearly expenditure the state ever made on roads, exceeding that of 1930 by \$2,394,756 and that of 1929 by \$7,135,098. The fact that road work was speeded during the year, due to good weather and an effort on the part of the state highway commission to give employment to drought sufferers and others, made a heavy drain on the treasury. Rather than throw several thousand workers out of employment, Governor Pollard announces his intention to borrow such funds as may be necessary to keep them employed. This sum will not exceed \$1,000,000, it is said, and funds will be borrowed from time to time as needed.

NEW AND IMPROVED EQUIPMENT

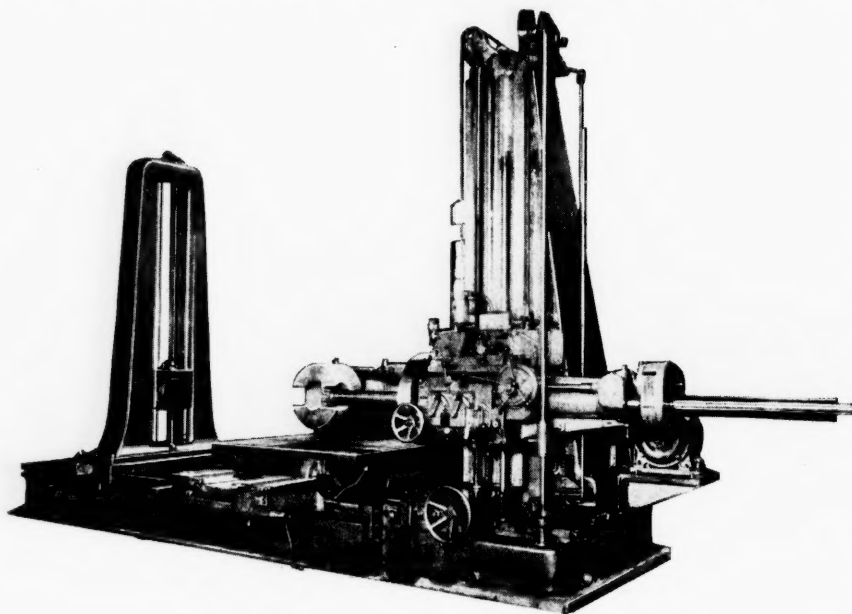
Horizontal Boring and Drilling Machine

In conjunction with the Ohio Machine Tool Company, Kenton, Ohio, it is announced that Joseph T. Ryerson & Son, Inc., Chicago, have developed a special

horizontal boring, drilling and milling machine, one of the largest of its kind. The weight is 60,000 pounds, diameter of spindle 5 inches, continuous feed to spindle 36 inches, reset to spindle 40 inches, working surface of table 60 by 98 inches with a cross feed of 94 inches, maximum distance from top of table to

center line of spindle 85½ inches, and maximum distance from face plate to bar support 168 inches. Eighteen speeds are obtainable, all reversible, while eight boring and drilling feeds and 16 milling feeds to the head, table and table saddle, all reversible, are furnished. Central oiling systems are furnished to all units. Gearing and shafting are of high carbon alloy steel, heat treated, the gears operating on multiple splined shafts or squared sections.

In addition to the size of the machine and its capacity for handling large work, several unusual features have been incorporated in design and construction, including a 60-inch power and hand driven revolving table which receives its power feed and rapid traverse from the feed shaft in the bed; also a novel thread chasing attachment operates directly from the spindle through a minimum number of gears and shafts to the feed pinion operating on the spindle sleeve. This mechanism is interlocked, so that the feeding and threading operation cannot be thrown in at the same time. The head of the machine contains feeding and driving mechanism for the spindle and all controls may be operated from this head, except directional control levers to the table and table saddle. Controls for the motor, which is reversible, are operated from the head and also from the floor. An important feature is the method of guiding various sliding members, all guides being of the square lock type with steel taper gibs fitted their entire length for resisting wear. The bed is a heavy box-shaped casting, containing chip chutes and the cutting compound lubricating system with pump. Power is furnished by a 20-horsepower constant speed reversible type motor, arranged for quick stopping.

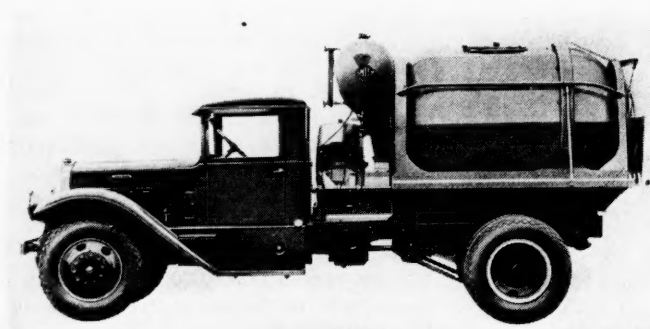


60,000-Pound Machine for Handling Large Capacities

Smith Truck Mixer and Agitator

With a background of more than 30 years experience in designing mixers for various types of concrete work, the National Equipment Corporation, Milwaukee, Wis., announces the Smith Truck Mixer and Agitator, a unit incorporating the following important features: A thorough five-step mixing action, accomplished by clock-wise rotating and without reversing direction; egg-shaped drum with 12-sided panel design; full control of discharge without hoisting or tilting the drum; adaptable to any make

of truck of sufficient capacity; separate power unit providing longer life of truck and better control; roller and ball bearing drum support; simplicity and ruggedness of design with a saving of weight and unnecessary mechanism. Offered in two sizes, the 1-1½-cubic yard machine has a capacity of 1 cubic yard of resultant concrete as a mixer and 1½ cubic yards as an agitator, while the 2-3-cubic yard machine has a capacity in resultant concrete of 2½ cubic yards and 3 cubic yards as an agitator. A third size, with a capacity up to 4½ cubic yards of concrete, will soon be available.



A
Rugged
Unit
Simple
in
Design

Sugar Plant for Small Farmer

A continuous and automatic sirup and sugar plant which can be installed at a cost of \$5000 has been invented and developed by L. E. Gouner of New Orleans, it is announced. It will grind out 50 tons of sugar a day. As the fibre itself is the fuel required, the plant will function as long as sugar cane is placed on the carrier. The plant requires a space 6 by 30 feet; it is 30 feet high and can be operated by three men. Mr. Gouner has been prominent in New Orleans sugar circles for the past 20 years; he believes his invention will cheapen the cost of making sugar from cane, beets or sorghum and will enable the small farmer to operate his own factory.

Cottonseed Storage Tanks

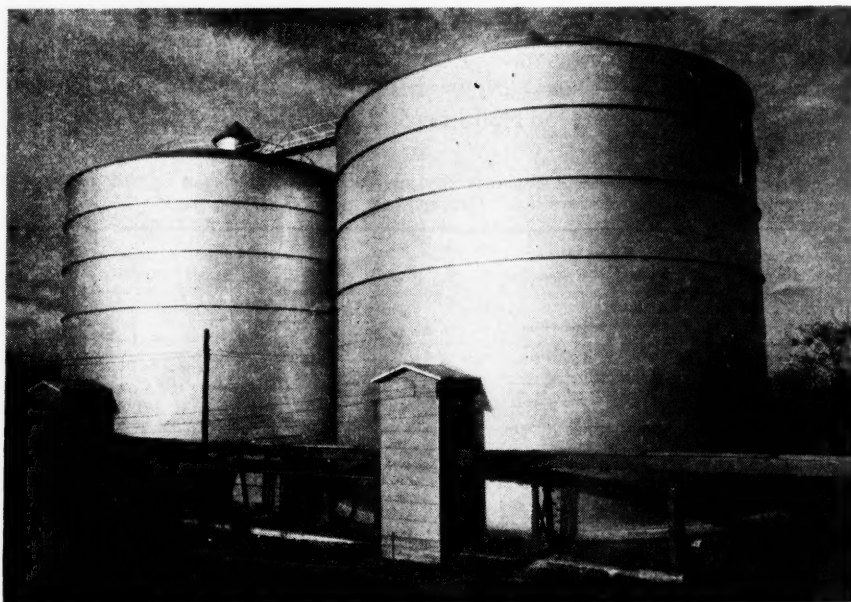
Development of a low self-supporting dome roof for cottonseed storage tanks of steel is announced by the Chicago Bridge and Iron Works, Chicago, Ill. This new structural design is described as being "more economical to build and pleasing to the eye." Installations have

been made at Memphis, Tenn., for the Buckeye Cotton Oil Company, (subsidiary of Procter & Gamble), for its cotton pulp mill which converts chemical cotton linters into sheets for use in making rayon, and at Greenville and Greenwood, Miss., for the Mississippi Cottonseed Products Company.

Cottonseed, the Chicago Bridge and

Iron Works Company explains, becomes hot in storage and is subject to spontaneous combustion unless proper ventilating precautions are taken. The method of handling cottonseed in storage and its tendency to pack and settle makes it impossible to have roof supports inside the tank.

In addition to comparing favorably in cost, the use of steel tanks materially reduces fire hazard and insurance rates and utilizes ground space to good advantage. Large steel tanks of special design have concrete floors or bottoms and self-supporting roofs.

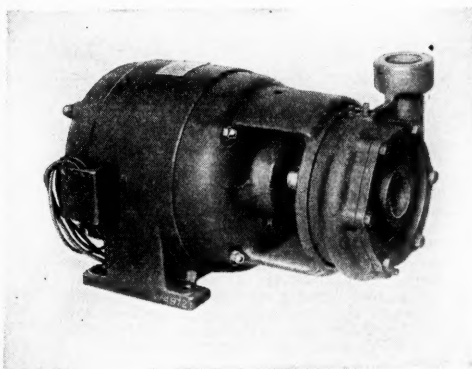


3000-Ton Cottonseed Storage Tanks, 70 Feet in Diameter, 60 Feet High, at Plant of Mississippi Cottonseed Products Co., Greenville, Miss.

Monobloc Pumping Unit

The Worthington Pump and Machinery Corporation, Harrison, N. J., has placed on the market the Monobloc (type D) centrifugal pumping unit, designed to meet requirements for a centrifugal pump of good efficiency, low initial cost and low maintenance, so designed and constructed as to insure good service with little care and attention. The pump is rugged and simple, bolted to the extended motor frame, with impeller mounted on the end of the continuous motor shaft. As shaft-protection, the bronze impeller incorporates the shaft sleeve as an integral part. Other features are a special cadmium-plated steel locking device for the impeller; forged bronze packing gland, and the arrangement of shaft water throwers. A ball bearing Masterbilt motor, designed especially for Worthington, incorporates standard electrical construction. Combined with the pump, it affords a pumping unit for many applications and should be valuable as a built-in part of assembled equipments such as

air-conditioning apparatus; dish, bottle, can and metal-parts washing machinery; filters and filter systems, dairy equipment, core sucking units, etc. The unit may be used also in house service for ice water and brine circulation, drainage and irrigation projects, golf

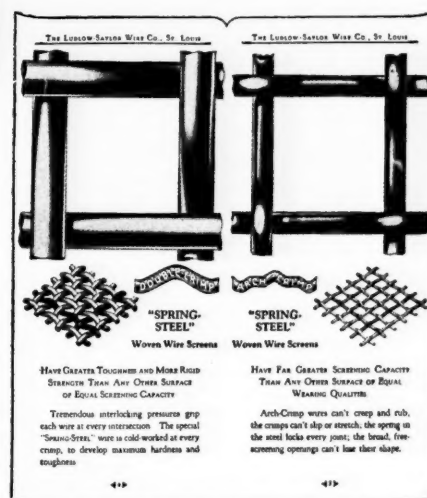


Centrifugal Pump of Rugged and Simple Design

course irrigation systems, booster service for sprinkler systems, in the petroleum industry and for general industrial service.

Woven Wire Screens

The Ludlow-Saylor Wire Co., St. Louis, Mo., after five years of experimentation and development work, announces it has rounded out a full line of alloy-steel woven wire screens in coarse meshes, suitable for service as revolving-screen jackets and vibrating-screen sections. They are applicable also where screens are required for rough abrasive work. Under the name of



Interlocking Pressure Grips Each Wire at Intersections

"Spring-Steel" woven wire screens, the new screens are described in a bulletin which lists approximately 250 grades and meshes, ranging from 4-inch openings made of heavy "Spring-Steel" bars down to $\frac{1}{16}$ -inch openings of No. 20 "Spring-Steel" wire.

10-Mile Rail Line

Shreveport, La.—Plans have been announced by the Texas and Pacific Railway Co., J. L. Lancaster, Dallas, Tex., president, for construction of a direct rail line between Shreveport and Lucas, a distance of 10 miles. Rights-of-way have been secured.

CONSTRUCTION DEPARTMENT

and

NEW ENTERPRISES

Covering the initial announcements of new undertakings with additional information about enterprises previously mentioned. The date at the end of an item indicates preliminary facts were given in a previous issue.

When writing to a new firm or corporation the name of at least one of the incorporators should be placed on the envelope to expedite its handling by the local postoffice. Mail may be delayed unless complete address is given.

Building and Construction Proposed and Contracts Awarded; Manufacturing, Mining, Power, and Land Developments; Public Works; Transportation; Communication; Financial Enterprises; New Business Opportunities Reported in the Sixteen Southern States.

The Daily Construction Bulletin of the Manufacturers Record gives each business day advance news published in this weekly review. It is invaluable to those requiring prompt information. Subscription price \$40.00 a year.

Airports, Airplane Plants, Etc.

Ala., Maxwell Field, Montgomery—War Dept., office of M. A. McFadden, Capt., Q. M. C., Constructing Q. M., receives bids Aug. 24, change of date from Aug. 11, for boiler plants, outside distribution system and steam conduit drains at Maxwell Field. Bids Asked. 8-6

Fla., Jacksonville—City Council authorized purchase of 30 acres land between Municipal Airport and Atlantic Coastal Highway for enlarging field; W. E. Shedden, Engr. 8-6

Ga., Atlanta—Fulton County Bd., reported, agreed to supplement \$35,000 city appropriation with appropriation of \$15,000 for constructing administration building, Candler Field; American Airways, Inc., reported, soon begin construction \$75,000 hangar and shop buildings; George F. Longino Chmn. of Committee. Call for bids after Sept. 15. 6-4

Ga., Atlanta—City, Joe Berman, Chmn., Aviation Committee Council, reported, selected Tucker & Howell, Archts., 1711 Rhodes Haverly Bldg., to design administration building at Candler Field; cost \$50,000; 2 stories and tower; 125x60 ft.; conc. foundations; cast stone; struc. steel; comp. roof; semi-fireproof; plans ready for distribution Sept. 1. 6-4

Ga., Savannah—City considering constructing hangar at municipal airport. 6-11

La., Barksdale Field, Shreveport—Constructing Q. M., Capt. Geo. E. Lamb, authorized by War Dept. to expend \$190,000 for 5 new buildings, gasoline and oil storage building and paved aprons, at Barksdale Field, construction to begin before Nov. 1, bids to be called soon.

La., Barksdale Field, Shreveport—K. C. Wilson, Box 549, Shreveport, contractor for paint, oil and dope house, post exchange and utilities building, photographic laboratory, radio and parachute building at Barksdale Field, advises following have sub-contracts: American Sheet Metal Works, 331 N. Arkansas St., New Orleans, metal door frames; Concrete Engineering Co., 2814 Pease St., Houston, Tex., rein. steel; Truscon Steel Co., Youngstown, O., steel casements; Henry Wells Mfg. Co., Elkhart, Ind., toilet partitions; Acoustics & Specialties, Inc., New Orleans, tile-Tex floors; M. L. Bath Co., Ltd., 610 Market St., Shreveport, vault door; B & B Cut Stone Co., Inc., McNeil St., Shreveport, granite and sandstone; Cahn Electric Co., Inc., 708 Milam St., Shreveport, electrical work; Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit, Mich., Kalamein doors and frames; Fitzgerald Plb. & Htg. Co., Inc., 941 Louisiana Ave., Shreveport, plumbing, gas fitting and heating; Albert Karelius, Shreveport, lathing, plastering and stucco work; North Texas Iron & Steel Co., 1401 N. Adams St., Fort Worth, Tex., struc. and misc. steel; Pittsburgh Plate Glass Co., 90 Fannin St., Shreveport, glass and glazing; Hobinson-Slagle Lumber Co., Inc., 1401 Abbie St., Shreveport, millwork, framing lumber and finish hardware; Victoria Lumber Co., Ltd., 119 Spring St., Shreveport, insulated doors for photographic laboratory; York Ice Machinery Corp., 2201 Texas St., Houston, Tex., air cooling system for photographic laboratory and cold storage for post exchange; H. H. Bain Sheet Metal Works, 808 Reynolds St., Shreveport, roofing and sheet metal work; Acme Brick Co., City Bank Bldg., Shreveport, hollow tile. 6-18

La., New Orleans—Plans in progress by National Airport Engineering Co., Cleveland, O., and Los Angeles, Calif., for proposed Shushan Airport; administration building to cost about \$90,000; plans will probably be submitted to Orleans Levee Bd., John Klorer, Ch. Engr., in about 90 days. 7-23

Miss., Vicksburg—Airport Committee of Chamber of Commerce, Sam Albrecht, Chmn., has plans prepared by A. G. Seifried, Inc., Engr., Werck Bldg., Baton Rouge, La., for construction of \$75,000 airport for Vicksburg and Warren county, site of present landing field.

Mo., Kansas City—Office of Quartermaster, Richard Field, 140 Richards Rd., receives bids Sept. 3 for addition to headquarters building, including installation of hot water heating plant. See Want Section—Bids Asked.

Mo., Kansas City—Executive Committee of Transcontinental & Western Air, Inc., New York, reported, approved design of system's new headquarters at Kansas City Airport; Alonzo H. Gentry, Archt., 202 March Bldg.; 4 structures included in plans, largest being 400x125 ft. hangar; office for executives, machine shops and other shops will be housed in 50 ft. leanto, running entire length of east side of hangar; third building for motor testing will be erected 30 ft. south of hangar and will be 40x120 ft.; other office will be in a 2 story brick building at north end of hangar; office building proper will be 40x170 ft.; including conc. ramp at west side of hangar the air base will occupy area of 170x490 ft., provision made for construction of second hangar. 6-25

Mo., St. Louis—Kunze Construction Co., 5926 Scanlon St., low bidder at \$19,988, for grading, conc. aprons, taxi strips and service road at Lambert-St. Louis Municipal Airport. 7-23

Okla., Oklahoma City—Project, reported, postponed indefinitely for hangar and office building at Municipal Airport; Langbein & Johnston, Archts., 915 N. Hudson St. 7-23

Tex., Randolph Field—Allis-Chalmers Mfg. Co., Milwaukee, Wis., reported, has contract for irrigation pumping equipment at Randolph Field on items 1 and 2; San Antonio Machine & Supply Co., 325 N. Centre St., San Antonio, for Item 4 and Fairbanks, Morse & Co., 1713 N. Market St., Dallas, for Item 3; J. L. Black, 2008 S. Olive St., San Antonio, low bidder at \$28,000 for 4 auxiliary conc. water storage tanks and conc. covered underground reservoir. 7-23

Tex., Dallas—City, Preston Sneed, Director of Airports, advises R. G. Estep & Co., Dallas, was low bidder at \$93,000 for portion of runways at Love Field, bids opened Aug. 12; city will receive bids Aug. 19 for 150,000 paving brick to complete taxi-ramp, specifications now being drafted so that bid may be asked for lighting facilities and night flying aids at Love Field, \$14,000; plans drafted, bids called for in about 2 weeks for city administration building, \$20,000; in about 2 weeks more bids will be asked for additional runway work, \$25,000; bids opened Aug. 19 for additional drainage to cost \$25,000. 7-30

Va., Danville—Danville Flying Service, Inc., capital \$15,000, incorporated; W. S. Trundle.

Va., Norfolk—Navy Dept., considering expansion Naval Air Station at Norfolk Operat-

ing Base, by purchase of adjoining property in E. Camp Area; Congress will probably consider in Dec. naval appropriation program.

Bridges, Culverts and Viaducts

Proposed Construction

Fla., Miami—Dade County Commrs., Court-house, calling for bids for repairing bridges on 79th St. causeway.

Kentucky—State Highway Comsn., H. D. Palmore, Engr., Frankfort, and Southern Ry., B. Herman, Ch. Engr., Washington, D. C., plan \$180,000 viaduct over tracks, Leestown road; surveys completed.

Kentucky—See Roads, Streets and Paving.

La., Rayville—Richland Parish Police Jury opens bids Sept. 1 for new bridge over Crew Lake, ½ mi. north of Start Post Office, 140 ft. long; L. H. Hubbard, Engr. in charge.

Maryland—See Roads, Streets and Paving.

Md., Baltimore—City, Bd. of Awards, Office of City Register, City Hall, opens bids Sept. 2 for \$135,000 bridge, Lafayette Ave., in connection with Pennsylvania R. R. electrification; 65,000 lb. rein. steel, 2900 cu. yd. excavation, 1100 cu. yd. conc.; H. L. Lucke, Bridge Engr.

Md., Baltimore—Pennsylvania Railroad, W. B. Wood, Engineer of Baltimore Improvements, Union St., Baltimore, soon take bids for bridge, Gay St.

Missouri—State Highway Comsn. receives bids for 20 bridges. See Roads, Streets and Paving.

Mo., St. Louis—St. Louis-San Francisco Ry. Co., F. G. Jonah, Ch. Engr., advises let contract to R. J. Reid, 1505 S. 28th St., Birmingham, Ala., for new rein. conc. subway for carrying 4 tracks over Southwest Blvd.; \$45,000.

Okla., Oklahoma City—Atchison, Topeka & Santa Fe Ry., H. W. Wagner, Ch. Engr., Eastern Lines, Topeka, Kan., has plans in progress for 500-ft. steel bridge over North Canadian River; H. L. Hunter, Res. Engr., Oklahoma City.

South Carolina—State Highway Comsn. receives bids for 13 bridges. See Roads, Streets and Paving.

Texas—See Roads, Streets and Paving.

Texas—See Roads, Streets and Paving.

Tex., Fort Worth—City, Geo. Fairtrace, City Mgr., submitted plans to International Great Northern R. R. Co., C. S. Kirkpatrick, Ch. Engr., Houston, for underpass, Oleander St.; to be built by city and railroad; rein. conc., steel.

Tex., Fort Worth—International-Great Northern R. R. Co., C. S. Kirkpatrick, Ch. Engr., Houston, plans \$30,000 street subway under East Rosedale extension; carry 2 30-ft. openings for street vehicles and 2 6-ft. sidewalks.

Tex., Shamrock—See Railways.

Tex., Waco—Missouri-Kansas-Texas R. R. Co. of Texas, F. Ringer, Ch. Engr., Dallas, plans starting work in near future on \$75,000 280-ft. subway to carry Seventh St. under tracks; portion under contract, remainder by railway forces.

Virginia—State Dept. of Highways, C. S. Mullens, Ch. Engr., Richmond, has low bids for 3 bridge projects: Over Piney River, Route 313, M. S. Hudgins, 23 Second St., South Roanoke, \$7388; over Brick Kiln Branch, Route 13, Perkins, Barnes Construc-

tion Co., Blackstone, \$2589; over Stevens Run, Route 13, Perkins, Barnes Construction Co., \$6010. 7-30

Contracts Awarded

Ky., Henderson—Globe Construction Co., Evansville, Ind., has contract for 2 overflow bridges and 2 small bridges in connection with Ohio River bridge between Evansville and Henderson, Ky., one bridge in Henderson County, Ky., and one in Vanderburg County, Ind., \$97,044; bridge over Bee slough and Eagle Lake slough and over Granger ditch, \$24,865. 8-6

Mississippi—State Highway Comsn., Tower Bldg., Jackson, let contract to Jones & Laughlin Steel Corp., New Orleans, for furnishing struc. steel f. o. b. for 70-ft. span; construction with state forces and equipment. 8-6

Okla., Oklahoma City—Atchison, Topeka & Santa Fe Ry., H. W. Wagner, Ch. Engr., Eastern Lines, Topeka, Kan., let contract involving \$1,500,000. for retaining walls and underpasses of track elevation. 7-23

Tex., Fort Worth—Tarrant County, W. E. Yancey, County Aud., tentatively let contract to Ernest Loyd Sand & Gravel Co., Texas Natl. Bldg., at \$47,312, for bridge over Trinity River, Frey Ave. extension; steel, rein. conc., 292 ft. long, 40 ft. wide. 8-13

Va., Portsmouth—City let contract to Z. Turner Construction Co., Suffolk, for 2 bridges over arms of Lake Cahoon, replacing 3 similar structures, at \$11,646; 192 and 317 ft., respectively, both to rest on creosoted piling, superstructures of wood and steel supports with wooden floors surfaced with watertight bitum. covering, 18-ft. roadway. 8-6

Canning and Packing Plants

Ky., Barbourville—Cumberland Canning Co., incorporated; G. M. Manning, Bailey Frazier. 8-6

Tenn., Ripley—Ripley Canning Co., incorporated; B. F. Craddock, L. R. McKnight. 8-6

Clayworking Plants

La., Slidell—Schneider Brick & Tile Co., 727 Canal Bank Bldg., New Orleans, organized by Matthew P. Schneider and associates; plans purchasing plant of Standard Clay Products Co., Inc., with capacity of 150,000 brick and tile daily. 5-28

Coal Mines and Coke Ovens

W. Va., Charleston—Calhoun Fuel Co., capital \$25,000, incorporated; Edw. Hess, 1531 Virginia St. 8-6

W. Va., Huntington—Riverton Coal Co., Crown Hill, applied to U. S. Engr. Office for permit to dredge and construct coal tippie on left bank of Kanawha River; approximately 50 ft. above normal pool elevation and will extend channel ward about 15 ft. from normal pool line. 7-16

Cotton Compresses and Gins

Ala., Mobile—Federal Compress & Warehouse Co., 79 Monroe St., Memphis, Tenn., reported, plans establishing high density compress at port. 8-6

Ala., Mobile—Turner Terminals Co., Horace Turner, Pres., reported, installing Webb high density compress in southern section. 8-6

La., Shreveport—American Compress and Warehouse Co., end of Johnson St., having plans prepared by Seymour Van Os, Archt., City Bank Bldg., for 1 story, frame and sheet iron warehouse on Linwood St.; cost \$20,000. 8-13

Okla., Gotebo—Wanzor Gin Co., capital \$20,000, incorporated; H. T. Wanzor, Mountain View. 8-6

Okla., Oklahoma City—Morgan Gin and Cotton Co., Inc., capital \$25,000, incorporated; Otto Brown, 933 E. 20th St. 8-6

Tex., Crawford—Crawford Gin Co., capital \$20,000, incorporated; G. H. Keeling, Lee Anderson. 8-6

Tex., Miles—Lone Star Co-Operative Gin Co., capital \$500,000, incorporated; J. M. Clark, N. S. Wright. 8-6

Tex., Robert Lee—Coke County Gin Co., incorporated; D. F. Perciful, Joe B. Dodson. 8-6

Drainage, Dredging and Irrigation

Ala., Mobile—U. S. Engr. Office, dredge Mobile Bay channel with government plant and hired labor. 8-6

Ark., Harrisburg—Morgan Engineering Co., 620-634 Goodwyn Institute Bldg., Memphis, Tenn., advises date for letting work on Drainage Dist. No. 7, Poinsett County, set for Aug. 28. 8-13

Md., Baltimore—U. S. Engr. Office, Customhouse, rejected bids for dredging 30,037 cu. yd., Broad Creek; work will be done by government plant. 8-6

Md., Baltimore—U. S. Engr. Office, 300 Customhouse, opens bids Sept. 3 for dredging in entrance to Craighill Section of channel leading to Baltimore, material est. approx. 1,050,600 cu. yd., scow measure. 8-6

Miss., Biloxi—U. S. Engr. Office, Mobile, Ala., dredge in Mississippi Sound and Back Bay with government plant and hired labor. 7-2

Tex., Galveston—Galveston County Comms. Court has low bid from Gulf Coast Dredging Co., 2311½ C St., Galveston, at 50 cents per cu. yd. for 24,000 cu. yd. dredging slips Galveston-Bolivar Ferry channels. 7-30

Tex., Houston—U. S. Engr. Office, Galveston, let contract to Sternberg Dredging Co., Arcade Bldg., St. Louis, at \$426,627, for dredging 7,740,300 cu. yd. material, Houston ship channel. 7-30

Tex., Wichita Falls—Wichita County Drainage Dist. No. 2, G. A. Remington, Gen. Mgr., let contract to Combs & Glade, 602 Sunset Dr., Wichita Falls, at \$44,406, for earthwork, structures, canals, laterals, ditches, approaches. 8-13

Va., Hopewell—City, Roy S. Braden, City Mgr., authorized by War Dept., Washington, to dredge channel from City Point to Eppes Island. 8-6

Va., Richmond—See Miscellaneous Construction. 8-6

Electric Light and Power

Electric light and power work in connection with many LAND DEVELOPMENT operations involves the expenditure of large sums of money. See that classification for details. 8-6

D. C., Washington—Office of David Lynn, Archt. of Capitol, receives bids Sept. 17 for construction of house, walks, installation of underground sprinkler system, street lighting system, etc., in Squares Nos. 575 and 578 in connection with U. S. Botanic Garden. See Want Section—Bids Asked. 8-6

Ga., Macon—City Council approved introduction of bill in state legislation giving Macon right to construct or acquire an electrical power and light plant and distribute electricity in Macon, its suburbs and environs and to construct plant for generating gas for distribution. 8-6

Ga., Tennesse—Georgia Power Co., Electric Bldg., Atlanta, advises transmission line from Tennesse to Oconee has been completed; was built to provide power for Edgar Brothers Ceramic plant at Gardner. 8-6

Ga., Toccoa—Col. Clay Davis, of John H. Davis & Son, Atty., reports, group of Eastern bankers interested in developing three hydro electric power sites. 8-6

Kentucky—Public Utilities Development Co., Louisville, and its Kentucky operating subsidiary Kentucky Electric Development Co., 320 Breslin Bldg., Louisville, reported, plans hydro electric development on Chaplin River, in Washington and Nelson Counties, at Tunnel Mill about 20 miles from Bardonia; plans provide for installed hydro electric capacity capable of handling peak load of 2000 h. p.; construct arched dam 50 ft. high, 700 ft. long; lake 20 miles long containing 84,000,000 sq. ft. of water surface will be formed by construction of dam; present tunnel will be enlarged, later will be replaced by conc. forebay and additional up-to-date generators; will supply power to D. B. Sutherland & Sons flour mill, farm homes and communities in surrounding territory; work preliminary to proposed development completed. 8-6

Miss., Starkville—City, reported, let contract to Fairbanks, Morse & Co., Chicago, Ill., for erection light plant, including white way system. 8-6

Mo., Callao—Missouri Power and Light Co., Kansas City, reported, applied to State Public Service Comsn., Jefferson City, for permission to acquire town lighting plant. 8-6

Mo., Carthage—Carthage Water and Electric Co., reported, negotiating for light and power lines west of here on Oak St. Rd. owned by Empire District Electric Co., Joplin, Mo. 8-6

Mo., St. Louis—Laclede Power and Light Co., subsidiary of Laclede Gas Light Co., reported, move 4000 kw. steam turbine and generator unit from Mound St. station to Catalan St. plant; construct new 5000 kw. unit at Mound St. plant; applied to Bd. of Public Service for permission to build aerial and submarine cables across Mississippi River. 8-6

Okla., Wilburton—Public Service Co. of Oklahoma, 600 S. Main St., Tulsa, let contract to Southwest L. E. Myers Co., 100 Allen Bldg., Dallas, Tex., for construction 66 kv. H-frame transmission line underbuilt with 11 kv. line from Wilburton to Wister. 8-13

Tex., Dallas—Superior Electric Co., 409 S. Erway St., has contract for ornamental lighting system on N. Lamar St. 8-13

Va., Bedford—Town, Mayor Gillaspie, plans construction power line from near Big Island to power plant. 8-13

Va., Martinsville—City, A. S. Gravely, Clk., receives bids Aug. 26 for alterations to hydro electric plant; Saville & Williamson, Inc., Conslt. Engrs., 603 Electric Bldg., Richmond. See Want Section—Bids Asked. 8-13

Va., Norfolk—Murray Iron Works Co., Burlington, Iowa, reported, low bidder at \$26,154, for air compressor at central power plant at Navy Yard. 2-19

Va., Orange—Town, reported, granted 20-yr. franchise to Virginia Public Service Co., Alexandria, Va. 8-13

Va., Yorktown—Oliver G. Taylor, Engr. in Charge, Colonial Monument, receives bids Aug. 26 for furnishing materials and labor for complete installation of lighting system for Yorktown Sesquicentennial Celebration and for complete removal. See Want section—Bids Asked. 8-13

West Virginia—State Supreme Court, Charleston, reported, dismissed application of West Virginia Power & Transmission Co., subsidiary of West Penn Electric Co., both 14 Wood St., Pittsburgh, Pa., for authority to develop hydro electric power on Cheat River. 6-19

Fertilizer Plants

Ga., Albany—Brown Guano Co., reported, acquired plant of Shepard Fertilizer Co. outside city limits. 8-6

Tex., San Antonio—American Fertilizer and Chemical Works, Inc., Thomas F. Hawkins, San Saba, Pres., reported, establishing pulverizing, manufacturing and mixing plant at 401 Comal St., with shipping, weighing storage and office building; capacity 100 tons daily; raw material to be used will include crude nitrogen taken from phosphoric acid; will also develop Bexar County greensand marl and possibly Southwest Texas bat guano. 8-6

Flour, Feed and Meal Mills

Tex., Sherman—Kay Kimbell, 1932 Chaburn Court, Fort Worth, reported, acquired interest in Diamond Flour Mills. 8-6

Garages and Filling Stations

D. C., Washington—L. P. Steuart, Inc., 1401 14th St., N. W., reported, constructing sales and service building on P St. between 14 and 15 St.; entrance through a 40 ft. safety lane to ramp running to roof; will contain 80,000 sq. ft. floor space; machinery installed for every type of repair from body construction to motor rebuilding; roof used for storage; cost of building and land \$325,000. 8-6

Fla., Coral Gables—Samuel Weissel, 2214 Ponce de Leon Blvd., having revised plans prepared for alterations to service station S. W. Cor. Ponce de Leon Blvd. and Coral Way; Paist & Steward, Archts., Art Center Bldg., Coral Gables. 5-21

Fla., Miami—Sun Oil Co., 300 Alton Rd., Miami Beach, reported, construct filling station W. Flagler St. at 9th Ave. 8-6

Fla., Miami—Leo L. Noble, 168 N. E. 46 St., construct auto laundry W. Flagler St.; R. A. Preas, 604 Fifth St., Miami Beach, Archt. 8-6

Fla., Mulberry—Miner Motors, Inc., chartered; A. Livingston, Jr., K. B. Livingston, I. W. Waters. 8-6

Ga., Atlanta—The Flagler Co., Red Rock Bldg., Carnegie Way and Spring St., Atlanta, reported, has contract for bus terminal for Greyhound Bus Lines, Lessee; Asa G. Candler, Inc., Candler Bldg., Owners; 1 and 2 stories; 93x45 ft.; rein. conc. brick, hollow tile, cast stone, steel sash, built-up roof; Henry, Adler & Shutze, Archts., 1330 Candler Bldg. 8-6

La., Baton Rouge—D. E. Chapman, Werck Bldg., Baton Rouge, has contract for 1 story, 90x120 ft. rein. conc. and brick addition to Mann-Atkinson Bldg., North St. near Jackson Rd., for auto sales building; Henry E. Schwarz, Archt., Slatery Bldg., Shreveport. 8-6

Md., Baltimore—Sherwood Bros., Baltimore Trust Bldg., reported, construct filling station, Frederick Rd. and Caton Ave., Catonsville; 1 story, brick; R. I. Welsh, Archt., care owner. 8-6

Md., Baltimore—Parking Centre Service Station will not go forward with construction of service station and garage, St. Paul Place and Centre St., until fall; Clyde N. and Nelson Friz, Archts., Lexington Bldg. 5-14

Md., Baltimore—Wm. Shipley, 3547 Chestnut Ave., construct 16 garages 826 W. 33rd St.; conc. block, 1-story.

Mo., St. Louis—Hardy Chevrolet Co., 6828 Gravois St., incorporated; E. N. Hardy, 6820 Gravois St.

Mo., St. Louis—Phillips Petroleum Co., Bartlesville, Okla., reported, let contract to Austin Co., 16112 Euclid Ave., Cleveland, O., for 14 service stations.

N. C., Goldsboro—Center Street Corp., formed by George S. Dewey and others, for purpose of erecting garage for Scott Motor Co.; construction work started on garage building to cost \$15,000; E. F. Taylor, Contr.

Okla., Hobart—D. & B. Chevrolet Co., Inc., chartered; J. M. Bonham, A. L. Durand.

S. C., Charleston—Auto Bearing & Parts Co., capital \$50,000, incorporated; O. P. Hollis, 80 Cannon St.

Tex., Dallas—Indian State Oil Co. of Texas, subsidiary of Indian State Oil Co., of Oklahoma, has under construction refinery at Gladewater in which it will process crude oil from its East Texas holdings; reported, acquired Galloway chain of service stations, about 30 in number in Dallas and vicinity; also negotiating for 2 additional refineries in vicinity of Dallas; W. G. Johnston, Oklahoma City, Okla., Treas.; J. Carl Fowler, Oklahoma City, V. P.

Tex., Mexia—Oliver Motor Co., Inc., chartered; Frank C. Oliver, J. E. Page.

Gas and Oil Enterprises

Ky., Bowling Green—Bowling Green Refining Co., Box 605, let contract to Leader Industries, Inc., Decatur, Ill., for distillation units, cost \$19,000; will construct 1000 bbl. capacity topping plant, install containers, pipes, stills, bubble tower, etc., expend \$50,000. See Want Section—Machinery and Supplies. 8-13

Ky., Richmond—See Water Works.

Miss., Collins—Frank K. McGehee, Pres., Public Service Corp. of Mississippi, 5214 Vanderbilt St., Dallas, Tex., reported, has 25 yr. gas distribution franchise; company receiving proposals for installation of natural gas distribution system in Hattiesburg, Petal and Harvey; bids opened Aug. 30.

Miss., Hazlehurst—United Gas Corp., Esperson Bldg., Houston, Tex., applied to Bd. of Aldermen for franchise to furnish gas; has acquired control of gas pipe line from Jackson to McComb. 3-19

Mo., Carrollton—Ozark Distributing Co., L. M. King, Dist. Mgr., reported, plans extending gas line Carrollton to Norborne.

Okla., Oklahoma City—Clara Oil and Gas Co., incorporated; Henry Rosenthal, Wichita, Kans.

Okla., Shawnee—Western Gas Service Corp., Braniff Bldg., Oklahoma City, reported, expend \$450,000 for improvements following granting of 25 yr. gas franchise by city. 8-13

Okla., Tulsa—Small Oil Co., capital \$40,000, incorporated; George B. Small, 1244 S. Florence Place.

Tex., Houston—Ella May Oil Co., capital \$75,000, incorporated; W. N. R. Smith, 1528 Courtland St.

Tex., Longview—B. A. Skipper Lease and Royalty Co., Inc., capital \$200,000, incorporated; B. A. Skipper, B. A. Skipper, Jr.

Tex., Jacksonville—Sinclair Pipe Line Co., Sinclair Oil Bldg., Tulsa, Okla., reported, constructing \$100,000 pumping plant 4 miles north of here to serve 12-in. line recently constructed from East Texas oil field to Teague.

Tex., Mexia—Sinclair-Texas Pipe Line Co., Esperson Bldg., Houston, reported, construct booster pump station on 12-acre site northeast of Turlington in Freestone county; use electric motors to operate pumps.

Tex., Port Arthur—Petroleum Iron Works, Island Park, Beaumont, reported, has contract for three 118,000-bbl. oil tanks for Texas Co.

Tex., Seymour—J. Harris and J. R. Fowler, reported, construct \$50,000 refinery.

Texas—Texas-Empire Pipe Line Co., Burt E. Hull, Pres., 2591 N. McGregor St., Houston, and Texas Co., 135 E. 42nd St., New York, reported, let contract to A. O. Smith Corp., Milwaukee, Wis., National Tube Co., Frick Bldg., Pittsburgh, Pa., Youngstown Sheet & Tube Co. and Republic Steel Corp., both Youngstown, O., for 207 miles 12½-in. pipe for oil line in Texas, 27,000 tons. Also, reported, let contract to N. A. Saigh Co., Builders Exch. Bldg., San Antonio, for south

half of line and to Apex Construction Co., Tulsa, Okla., for north half; line will begin on P. B. Wall farm in Tenison survey 4 miles N. W. of Kilgore in Gregg county, run south by New Salem, Lufkin, Kiam, Sour Lake and Port Arthur; estimated capacity 75,000 bbls. daily; 5 main line pumping stations powered by Diesel engines and centrifugal pumps will be used. 8-6

Texas—Tidewater Associated Oil Co., 17 Battery Place, New York, reported, construct 200-mi. pipe line, East Texas to Gulf Coast.

Tex., Tyler—Willard Oil Co., capital \$30,000, incorporated; A. L. Preston, I. B. Mitchell.

Tex., Tyler—Friedman Oil Corp., incorporated; Louis Friedman, Lawrence Orlov, Nat Friedman.

Tex., Tyler—McKenzie-McIntyre Oil Corp., capital \$150,000, incorporated; G. M. Byrd, R. M. Wilson.

Va., Lynchburg—Lynchburg Gas Co., 601 Main St., construct compressor house, 23x36 ft., and foundations for new machinery; cost of buildings \$15,000, including foundations; install water heater, steam turbine, water filtering system, etc., cost \$32,000; work by local company's engineer, L. G. Wofford and W. H. Liggon; move boiler and compressor from another plant; company is controlled by Central Public Service Corp., Albert E. Peirce, Pres., Chicago, Ill. See Want Section—Machinery and Supplies. 8-13

W. Va., Charleston—Harshberger Gas Co. of New York incorporated; Edith Phillips, 1419 Washington St.

Ice and Cold-Storage Plants

Tex., San Antonio—H. J. Von Rosenberg, 1515 N. Alamo St., has contract for banana storage for Scobey Fireproof Storage Co.; brick and conc., conc. floors, conc. and asphalt roof; Wright Bros., San Antonio, Contrs. for electric light; Engineering Service Corp., Houston, Constr. Engr. 8-13

Land Development

Fla., Gainesville—Modern Development Co., Inc., chartered; A. Miller, F. D. Bryant.

Fla., Tampa—Dewabe Corp., incorporated; J. F. Perry, 204 W. Floribaska St.

Fla., Thomotosassa—D. C. Lee, Inc., chartered; L. W. Lee, P. E. Dixon.

Ky., Thompkinsville—Monroe Realty Co., incorporated; W. K. Richardson, A. B. Strickler, J. H. Newman.

La., New Orleans—Mahan Realty Co., capital \$45,000, incorporated; Andrew C. Anderson, 210 S. Pierce St.

Md., Baltimore—Fort Severn Beach Development Co., 113 S. Hanover St.; chartered; Harry W. Shenton, Munsey Bldg.

Md., Baltimore—Southern Cane Products Corp., 1010 Court Square Bldg., incorporated; Leroy Lane, First Natl. Bank Bldg., Baltimore.

Md., Baltimore—Ambassador Apartment Corp., 3945 Greenmount Ave., incorporated; Thomas F. Mullan.

Md., Towson—Baltimore County Co., Inc., chartered; Francis T. Peach, Offutt Bldg.

Mo., Kansas City—Whiffin Estate Corp., incorporated; Stanley Garrity, 407 Security Bldg.

Mo., St. Louis—Community Homes Corp., controlled by Albert Wenzlick Real Estate Co., 1010 Chestnut St., plans development of Pasadena Park on north Pasadena Hills as community project; construct wading pool, parks and recreational facilities.

S. C., Anderson—Johnston-McCrown Co., chartered; J. M. Evans, S. A. McCown, Jr.

Tex., Houston—Woodlawn Cemetery Co., incorporated; J. W. Metzler, 1203 Wichita St.

Va., Alexandria—R. L. Kane, Inc., capital \$25,000, incorporated; R. L. Kane.

W. Va., Huntington—Tenth St. Realty Co., capital \$25,000, incorporated; Walter L. Brown, First Huntington Natl. Bank Bldg.

W. Va., Moundsville—Moundsville Real Estate and Insurance Co., capital \$50,000, incorporated; B. D. Hodgman, W. E. Peabody.

W. Va., Philippi—Waddell Bros., Inc., chartered; George Waddell, A. G. Waddell.

Lumber Enterprises

Fla., Jacksonville—Southern Cypress Co., incorporated; C. K. Wells, Venetia St.

Tenn., Knoxville—Whitcomb and Ballou Lumber Co., C. W. Ballou, reported, acquired 2¼ acre tract in Proctor Addition; establish wholesale lumber plant.

Tex., Orange—Lutcher-Moore Lumber Co., reported, acquired 8052 acres Orange county oil, farm and pasture land from San Jacinto Life Insurance Co., Beaumont.

West Virginia—Summit Lumber Co., Citizens Bank Bldg., Uniontown, Pa., advises have no definite plans for beginning operation on tract of timber recently purchased in West Virginia; will move machinery now in operation on Wharton Furnace tract. See Want Section—Machinery and Supplies. 6-25

Mining

Arkansas—Corona Silica Products, Inc., H. R. McKnight, V. P., Rogers, plans commercial production of rutile from ore-bearing soils in Magnet Cove area of Hot Spring County, near Hot Springs National Park; has lease on 327 acres, about 100 of which is estimated to be rutile bearing soil; proposes to concentrate ore and ship from 100 to 200 tons concentrates monthly.

Mo., Kansas City—American Black Marble Corp., capital \$50,000, incorporated; Bert W. Brown, 1805 Brownell St.

Miscellaneous Construction

Ala., Mobile—Supt. of Lighthouses, New Orleans, has low bid from Littrell Construction Co., American Bank Bldg., New Orleans, for constructing 800 ft. creosoted pile and timber bulkhead. 7-30

Fla., Key West—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract to Van Gorden Constructing Co., Jacksonville, at \$159,000, for improving breakwater. 7-30

Fla., Miami—See Drainage, Dredging and Irrigation.

Ga., Columbus—Williams Lumber Co., Inc., 13th St., has permit for \$10,000 conc. mill race retaining wall, for Eagle and Phenix mills, Front Ave., south of 14th St.

Louisiana—State Dept. of Conservation, F. S. Maestri, Commr., No. 126 New Orleans Civil Dist. Court Bldg., New Orleans, having plans completed by Frank H. Waddill, Engr., Tulane-Newcomb Bldg., New Orleans, for conc. dam, Winn and Natchitoches Parishes, on Saline Bayou, for fish and game preserve.

La., Lacombe—F. S. Maestri, Commr. of Louisiana Dept. of Conservation, Office No. 126, New Orleans Civil Dist., Court Bldg., New Orleans, has low bid from Jos. F. Egan, 4320 Canal St., New Orleans, for excavation of ponds and other work in connection with Ozone Fish Hatchery. 8-6

La., New Orleans—Bd. of Commrs. of Port of New Orleans, 200 New Orleans Court Bldg., has low bid from Hibernia Roofing & Metal Works, 2265 St. Claude Ave., on sheet metal work for trim for shed at Charbonnet St. Wharf extension, at \$2508; from R. J. Dorn & Co., Inc., 5300 Tchoupitoulas St., at \$7577 for roofing. 8-6

Md., Salisbury—Atlantic Mausoleum Co., Inc., Albert Ferrar, Pres., 1563 Vernon St., Harrisburg, Pa., advises regarding mausoleum to be constructed: "If this building is erected construction will not begin until early spring." 6-11

Okla., Tulsa—City, Ben O. Angel, Commr. of Streets, probably start construction soon on \$75,000 incinerator.

Tenn., Memphis—U. S. Engr. Office, McCall Bldg., let contract to Patton, Tully Transportation Co., Memphis, at \$289,291, for approx. 15,800 lin. ft. permeable pile dikes, Mississippi River. 7-23

Tenn., Memphis—U. S. Engr. Office, McCall Bldg., let contracts for 14,300 lin. ft. permeable pile dikes, Mississippi River; Item 1, 5700 lin. ft. below Island 35, Woods Bros. Construction Co., Lincoln, Neb., \$71,114; Item 2, 3800 lin. ft., Hd. Vice President's Island, Tenn., and Item 3, 4800 lin. ft. above Island 63 Vicinity, Miss., both Patton, Tully Transportation Co., Memphis, at \$66,227 and \$117,246, respectively. 7-23

Tex., Houston—Harris County Navigation Dist., J. Russell, Wait, Port Director, let contract to Knutson Construction Co., Union Natl. Bank Bldg., at \$59,350, for steel warehouse over extension now being built on Dock No. 10. 8-13

Tex., San Angelo—Lewis Radcliffe, Acting Commr., Bureau of Fisheries, Washington, D. C., reported, considering sites in Concho Valley near here for \$35,000 fish hatchery.

Va., Richmond—Port Comsn., James F. Ryland, Chmn., advises recommended that city acquire frontage along river approx. 3 mi. below city, track of approx. 800 ft. along riverfront and about 1600 ft. deep;

opposite this property turning basin will be dredged and upon property it is planned to erect 3 wharf units with sheds, each unit to be about 1500 ft. long; plans made for railway tracks and distribution yards; plans approved by Division Engr. Office; John F. Coleman, Const. Engr., 501 Hibernia Bldg., New Orleans, La. 8-13

Miscellaneous Enterprises

Ala., Birmingham—E. C. Coston Construction Co., 3019 Sixth Ave., S., Birmingham, reported, has contract for building Sixth Ave., N., for Birmingham Slag Co., Comer Bldg.; rein. conc.; brick, cast stone trim; compo. roof; Warren, Knight & Davis, Archts., Protective Life Bldg., Birmingham.

Fla., Jacksonville—P. R. McCrary of McCrary Engineering Co., reported, plans organizing company for erection and operation of plant in the South, to manufacture tractor plow, McCrary's Mechanical Mule, now being manufactured at York, Pa.

Fla., Lakeland—Legion Publishing Corp., incorporated; E. R. Burtley, A. R. King.

Fla., Miami—Style Craft Bag Co., Inc., chartered; S. C. Myers, Seybold Bldg.

Fla., Miami—Riverside Laundry, W. Flagler St., will probably let contract to G. S. Phillips Co., 236 N. W. 11 Ave., for addition.

Fla., Panama City—Southern Kraft Corp., subsidiary of International Paper Co., 100 E. 42nd St., New York, constructing storage building, provide additional floor space of 60,000 sq. ft.; also constructing conc. and steel cotton warehouse, provide 30,000 sq. ft. floor space, capacity 6000 bales.

Fla., Orlando—Terminix Co. of Orlando, incorporated; C. W. Smith, 319 Ridgewood Ave.

Fla., Orlando—Orlando Awning & Window Shade Corp. incorporated; F. Healey, W. J. Brandel.

Fla., Sarasota—George H. Wilson, Inc., chartered; G. H. Wilson, C. L. McKaig; contractors.

Fla., St. Petersburg—Florida Growers Publishing Co., Inc., 1306 Grand Ave., Tampa, advises acquired Lassing Publishing Co.'s plant, for enlarged facilities; will concentrate at that point on colored box and can labels; will install bronzing and varnishing machines. 8-13

Fla., Tampa—Purity Springs Water Co., capital \$100,000, incorporated; H. G. Warner, 86 Adallo Ave.

Fla., Tampa—Tampa Bay Ferry Co., Charles R. Carter, Pres., reported, plans expending \$300,000 for improvements; build 2 miles of causeways and piers; purchase 2 high speed boats. See Miscellaneous Construction. 7-23

Fla., Tampa—Arro-Lin Chemical Industries, Inc., chartered; D. E. Powell, 606 Magnolia Ave.

Fla., Tampa—Southland Publishing Co., incorporated; E. M. Hewlett, 109 Zack St.

Ga., Macon—Middle Georgia Pecan Growers Co-Operative Assn., R. E. L. Harkins, Pres., Barnesville, leased warehouse 7th and Poplar Sts. for plant.

Ga., Winder—Carwood Mfg. Co., reported, has plans by Marye, Mayre & Armistead, Archts., and Felton-Davis, Asso. Archt., both Walton Bldg., Atlanta, for addition to building; 2 stories; cost \$20,000; 100x100 ft.; conc. foundations; brick walls; tar and gravel roof.

Ky., Hopkinsville—Devil Grip Mfg. Co. increased capital, \$75,000 to \$85,000.

Ky., Irvine—W. B. Catchings & Co., London, reported, has contract for erection factory building for Hamilton Carhartt Overall Co., 1605 Michigan Ave., Detroit, Mich.; 1 story; contract for plumbing, wiring and heating to be let later; cost \$50,000. 7-2

Ky., Louisville—Freeco Nut Products Co., capital \$25,000, incorporated; Milton H. Frentz, 407 S. Western Parkway.

Ky., Louisville—Falls City Knitwest Co., capital \$15,000, incorporated; Walter I. Kohn, Commercial Bldg.

Ky., Louisville—Koch Auto Electric Co., Inc., 439 E. Broadway, has plant 430 E. Gary St., for mfg. battery cables and windings; install equipment. See Want Section—Machinery and Supplies. 8-13

Ky., Louisville—Falls City Knit Wear Co., Inc., chartered; Alex. M. Bornstein, 2231 Alta St.

Ky., Maysville—Dove Ferry Co., capital \$20,000, incorporated; J. E. Hannah, Russell Hanes.

La., Elizabeth—Calcasieu Sulphate Paper Co., C. L. Glasgow, Supt., erecting addition to finishing room.

La., New Orleans—John A. O'Brien, Louisiana Bank Bldg., reported, has contract at \$46,410 for construction additional story and alterations to building, 1101 Tchoupitoulas St.; sprinkler system and elevator contract not let.

Md., Baltimore—Forest Construction Co., 915 Equitable Bldg., incorporated; Jacob J. Edelman, Max Williams.

Md., Baltimore—Erie Labor News Publishing Co., Calvert Bldg., incorporated; Chester M. Wright, Carpenters Bldg., Washington, D. C.

Md., Mountain Lake Park—Mountain Lake Water Co., incorporated; Hillis H. Yoder, Eley, Y. Donovan.

Miss., Greenville—Arnold Drying Co., reported, construct \$25,000 alfalfa drying plant on Dunleith Plantation.

Miss., West Point—Swift & Co., Chicago, Ill., erecting poultry experiment farm; initial capacity 5000 hens; construct incubators on portion 7-acre tract; R. B. Meddaugh in charge.

Mo., Kansas City—Peerless Products Co. incorporated; J. Herbert Smith, 711 Natl. Fidelity Life Bldg.; manufacture novelty vending machine.

Mo., Kansas City—Ankor Door Holder Co. incorporated; C. C. Merchant, Independence, Mo.

Mo., Kansas City—Oak Park Laundry Co., reported, expand plant; purchased additional tract adjoining plant at 2611 E. 39 St.

Mo., St. Louis—Gossom Investments, Inc., 6104 Easton St., chartered; Jere S. Gossom, 6203 Plymouth St.; building and construction.

Mo., St. Louis—H. & S. Book Binding Co. incorporated; Leslie H. Steger, 5242 S. Grand Blvd.

Mo., St. Louis—Modern Homes and Building Insulators, Inc., chartered; Earl C. Hehmann, 3517 Lawn Ave.

Mo., St. Louis—Cream-O-Pop Sales Corp., capital \$50,000, incorporated; J. K. Wesson, Rwy. Exch. Bldg.; manufacture ice cream confections.

Mo., St. Louis—American Zero Palet Co., Don C. Cord, Pres., 23 N. Meramec Ave., Clayton, incorporated for manufacture of refrigerating units used for commercial purposes; units now being manufactured in Dallas, Tex.; plan removing to St. Louis.

Mo., St. Louis—Good Taste Cookie Kitchens, Inc., capital \$15,000, incorporated; Julius H. Bentzen, 6246 Northwood St.; manufacture confections.

N. C., Burlington—Burlington Times, O. F. Crowson, Jr., will rebuild burned plant.

N. C., Hickory—Woodcraft Letter Co., capital \$100,000, incorporated; G. L. Lyerly, H. L. Bost.

N. C., High Point—Continental Chemical Co., capital \$100,000, incorporated; Zed Griffith, D. C. MacRae.

N. C., Winston-Salem—N. E. and E. P. Pepper, Owners and publishers of Danbury Reporter, Danbury, reported, leased building 217 W. 5th St., Winston-Salem, publish weekly paper.

Okla., Tulsa—Superior Copyholder Corp., capital \$30,000, incorporated; C. H. Hubbard, Wright Bldg.

S. C., Charleston—Awnbest Corp., reported, occupied former plant of General Asbestos & Rubber Co., 27 Cumberland St.; installing machinery for manufacture fireproof and other awnings; will convert into awning strips a new asbestos fabric now being produced by General Asbestos and Rubber Co., division of Raybestos-Manhattan, Inc., North Charleston; estimated \$1,000,000 yearly output; W. H. Donnelly in charge of production.

S. C., Greenville—R. E. Watkins, reported, acquired Butler Marble and Granite Works on W. Washington St.

Tenn., Knoxville—Austin Tobacco Co., establishing plant to re-dry and pack tobacco.

Tenn., Memphis—Cotton Bloom Co., Memphis Cotton Exchange Bldg., incorporated; A. K. Tigrett, L. Palmer Brown; will take over the Atlanta manufacture of shortening from cotton and vegetable by-products formerly produced by International Vegetable Oil Co.

Tex., El Paso—Phelps-Dodge Corp., 40 Wall St., New York, with copper refining plant at El Paso, will have special meeting of stockholders Sept. 21 to consider company's becoming party to plan of re-organization with Calumet and Arizona Mining Co. by acquisition by this company of property and assets; proposed increase of capital stock and number of shares from \$75,000,000 consisting of 3,000,000 shares of par value of \$25 each to \$150,000,000 consisting of 6,000,000 shares, par value \$25 each.

Tex., Fort Worth—Oil and Marketing Barometer incorporated; E. W. Bounds, Majestic Bldg.; publishing.

Tex., Houston—Texas Rubber and Specialty Corp., capital \$80,000, incorporated; J. W. Harding, 2219 Benz St.

Tex., Sheldon—Ben Garrett advises recently acquired Mary Owens Oil Co.'s refinery at Humble; moved stills, boilers, agitator tanks, etc., to plant at Sheldon; converting 2 of them into wood distillation units; work under construction; in operation in 60 days. 8-13

Motor Bus Lines and Terminals

N. C., Dunn—Johnson Transit Co. incorporated; H. P. Johnson, Earl McWestbrook.

Okla., Muskogee—Muskogee Electric Traction Co. install 2 bus lines.

Tenn., Chattanooga—Consolidated Coaches, reported, signed 15 yr. lease on bus terminal to be built Tenth and Market Sts., by Nashville-Chattanooga Terminal Co., Nashville; 2 stories; brick; cost \$40,000; Marr & Holman Archts., Stahlman Bldg., Nashville. 6-11

Tex., Houston—F. & N. Truck Line, Inc., chartered; R. K. Fowler, 1825 Fairview St.

Va., Hopewell—Southern Transportation Co. applied to State Corp. Comsn., Richmond, for permission to operate bus line, Petersburg, Hopewell and Washington.

W. Va., Charleston—F. O. Sanders, State Supervisor of Transportation, will conduct hearings, Aug. 28 on following applications for bus line permits: J. G. Harper, Fairmont, for bus line between Fairmont and Benton's Ferry; West Virginia-Ohio Bus Co., Charleston, for line between New Haven and Ohio state line; N. and H. Bus Line, New Martinsville, for line between Wileyville and Hundred; West Virginia Transportation Co., 117 N. Fourth St., Clarksburg, for line between Morgantown and Burton; Monongahela Transport Co., Morgantown, for line between Morgantown and New Martinsville, via Route No. 7; Preston County Bus and Garage Co., Albright, for line between Bruceton Mills to Pennsylvania state line by way of Gladstone.

Railway

La., Shreveport—Texas & Pacific Ry. Co., E. F. Mitchell, Ch. Engr., Dallas, Tex., reported, purchased right-of-way for 10-mi. line between here and Lucas.

Md., Baltimore—Timken Roller Bearing Co., Canton, Ohio, reported, has order from Pennsylvania R. R., W. W. Atterbury, Pres., Philadelphia, for bearings for 150 electric locomotives, to be used between Washington and New York, involving \$400,000. 8-13

Md., Baltimore—Pennsylvania R. R., W. W. Atterbury, Pres., Philadelphia, Pa., authorized construction of 20 locomotive tenders with capacity of 25,000 gal. water and 25 tons coal; to be carried out at Altoona (Pa.) shops; F. G. Grimshaw, Works Mgr., Altoona.

Mo., Kansas City—Kansas City Terminal Ry. Co., Union Sts., authorized by Interstate Commerce Comsn., Washington, to construct double track line from connection with Missouri Pacific near Fourth and Bluff St., extending northeasterly about 1 mi. to another connection with Missouri Pacific near Holmes St.; \$700,000, including right-of-way.

Oklahoma—Chicago, Rock Island & Pacific Ry. Co., W. H. Petersen, Ch. Engr., Chicago, Ill., improving line between Choctaw and El Reno, costing \$77,500; consists of additional ballasting of 100-lb. steel recently laid; 60,000 cu. yd. rock to be purchased from Hartshorne Crushers Co.; plans similar work outside of state amounting to \$220,000.

Okla., Oklahoma City—Atchison, Topeka & Santa Fe Ry., H. W. Wagner, Ch. Engr., Eastern Lines, Topeka, Kans., reported, let contract to T. A. Allen Construction Co., Los Angeles, Calif., for conc. retaining walls and underpasses for track elevation project, involving \$1,500,000. 7-23

Tenn., Chattanooga—Tennessee, Alabama & Georgia Ry., H. F. Bohr, V.-Pres., plans expending \$300,000 within next 12 months, including laying heavy rails, costing \$50,000, on which work will start about Aug. 15.

Tenn., Memphis—Louisville & Nashville R. R. Co., W. H. Courtenay, Ch. Engr., Louisville, Ky., authorized by City Comsn. to build spur track to Buckeye Cotton Oil mill.

Tex., Dallas—Texas & Pacific Ry. Co., F. S. McClung, Pur. Agt., ordered 2500 tons rails and 500 tons tie plates and fastenings from Colorado Fuel & Iron Co., Denver, Colo.

Tex., Shamrock—Fort Worth & Denver City Ry. Co., R. C. Gowdy, Ch. Engr., Denver, Colo., let contract to Hamilton & Glea-

Williamson—14.1 mi. gravel base, replacing culverts and single bitum. surface treatment, Highway 104, Georgetown to Circleville, \$32,800;

Maverick—4 mi. regravelling, Highway 85, from 16 mi. north of Eagle Pass, \$10,000;

Bexar—8.4 mi. patching and surfacing gravel shoulders with limestone rock asphalt, Highway 16, Salado Creek to Wilson County line, \$9300;

Milam—5.9 mi. regravelling, Highway 43, Williamson County line east, \$22,870;

Caldwell—7.1 mi. gravel base course, Highway 80, Fentress to SAP 849-C, \$8760;

Bexar—15 mi. patching and surfacing with gravel shoulders and limestone rock asphalt, Highway 2, Leon Creek to Atascosa County line, \$16,400;

Hill—3.9 mi. asphaltic seal coat, Highway 6, southwest from Ellis County line, \$2500;

Gillespie—12.8 mi. grading, draining, Highway 81, Fredericksburg north, \$40,000;

Callahan—steel, conc. underpass, Highway 1, 1 mi. west of Baird, \$25,000.

Texas—State Highway Comsn., Gibb Gilchrist, Highway Engr., Austin, plans 7 mi. widening shoulders and ditches and surfacing with gravel, Highway 29, south from Travis County line, \$21,360.

Texas—State Highway Comsn., Gibb Gilchrist, Highway Engr., Austin, drawing plans for 7.8 mi. macad. asphalt topping on conc. base, Katy road, Harris County; probably let contract in September.

Tex., Beaumont—City Comsn. ordered paving Fourth St. and Ave. 4, opens bids Aug. 25.

Tex., Beaumont—Jefferson County Comms. Court and Citizens' Good Roads Committee approved \$2,032,000 tentative county-wide highway bond issue program.

Tex., Dallas—City, Earl Goforth, City Sec., soon start widening Davis St.

Tex., Galveston—Bd. of City Comrs. authorized taking bids for paving 45th St. from Ave. G to J; topping Ave. H, 35th to 40th St. and replacing wooden drains at 27th St. and Ave. A and 22nd St. and Ave. A; Adolph D. Suderman, Commr. of Streets and Public Property.

Tex., Houston—City Council adopted plans for paving N. Main St., Airline to E. 20th St., with 43-ft. roadway, and ordered copies be transmitted to Harris County Comms. Court for consideration; county participating to extent of \$770, and has voted \$25,000 for entire paving project which is being let in stretches; Council also authorized S. A. Starkey, Street and Bridge Commr. to proceed with graveling short stretches of roadways in various sections of city; J. M. Nagle, City Engr.

W. Va., Wheeling—City Council appropriated funds for street paving.

Contracts Awarded

Georgia—State Highway Bd., J. W. Barnett, Chmn., Atlanta, let contract to Wesco Co., Volunteer Life Bldg., Chattanooga, Tenn., for 7 mi. sand asphalt surfacing, Decatur County, FAP 325-D. 8-6

KENTUCKY—State Highway Comsn., H. D. Palmore, Engr., Frankfort, let contracts or has low bids for 8 roads and bridge in following counties:

Adair—8.001 mi. grading, draining, SP255AG, Columbia-Albany road, Wilmore Construction Co., Wilmore, \$38,693 (awarded);

Allen—2.102 mi. grading, draining, Scottsville-Bowling Green road, FA228BGS, Campbell & Co., Bowling Green, \$22,453 (awarded);

Casey—4.627 mi. grading, draining, Liberty-Lebanon road, SP628G, Young & Lyons, Rogersville, Tenn., \$61,344 (awarded);

McLean—5.718 mi. surfacing, Beech Grove-Eastwood Ferry road, SP2½CS, Robinson-Gregory & Hart & Hart, Owensboro, \$18,786; 9.909 mi. surfacing, Calhoun-Beech Grove road, SP2½DS, Corum Bros., Madisonville, \$20,030;

Shelby—3.633 mi. grading, draining, Shelbyville-LaGrange road, SP59½CG, Southeastern Construction Co., Eminence, \$13,927;

Union—11.603 mi. surfacing, Sturgis-Shawneetown road, SP121CS, Cole & Moore, Guthrie Bldg., Paducah, \$49,160;

Webster—3.378 mi. grading, draining, 5 revisions on Dixon-Henderson road, FA34CE-G2, Ed Hardy & Son, Pulaski, Tenn., \$18,569;

Carroll—bridge and approaches over Four Mile Creek, Carrollton-Warsaw road, FA188DB, Newberry Construction Co., 3335 Spokane St., Cincinnati, Ohio, \$49,198. 7-9

MISSOURI—State Highway Comsn., T. H. Cutler, Ch. Engr., Jefferson City, let contracts for 4 roads in following counties:

Schuyler—4.434, 4.423, 2.023 mi. gravel, 4.62, 4-63, 4-64, Gerard Knutson, 4908 Mercier St., Kansas City;

St. Clair—4.772 mi. gravel, SA-3, L. W. Haynes Construction Co., Bethany. 8-6

Tex., Memphis—Hall County let contract to Ralph Pleasant, Amarillo, for paving lateral highway, Lakeview west to Mulberry bridge, at \$209,463.

Va., Langley Field, Hampton—Constructing Quartermaster let contract to L. R. and M. T. Broyhill, Hopewell, at \$34,800, for conc. roads, curbs and sidewalks in non-commissioned officers' area; let contract for sidewalks, Fort Monroe, to E. P. Lindsay, 1331 High St., Portsmouth, at \$817.

Sewer Construction

Sewer construction in LAND DEVELOPMENT projects involves the expenditure of large sums of money. Under that classification details of these improvements are reported.

D. C., Washington—Roy D. Schlegel, 1333 Buchanan St., N. W., reported, has contract for Good Hope sewer in Alabama Ave.

Ga., Macon—Dysard Construction Co., Terminal Bldg., Atlanta, reported, has contract for storm sewer Broadway.

Ky., Louisville—Comms. of Sewerage receive bids Aug. 28 for constructing Trevillian way trunk sewer section A, Contr. No. 50; Woolsey M. Caye, Tech. Eng. See Want Section—Bids Asked.

Ky., Ravenna—W. T. Congleton & Co., Third and Walton Sts., Lexington, will construct extension to present sewer from Hudson Drive to Third St.

La., New Orleans—Executive and Drainage Committee of Sewerage and Water Bd., recommended acceptance of bid of Fairbanks, Morse & Co., 1000 St. Charles St., New Orleans, at \$32,500 for Contr. 119-D, for furnishing and delivering in Stations Nos. 6 and 7, two 450 h.p. and two 250 h.p. vertical synchronous motors and accessories; the 450 h.p. motors to be started by other means than by reactors. 8-6

Mo., Jefferson City—Creation of Sewer Dist. No. 50 was vetoed by the Mayor. 8-13

Mo., St. Louis—See Roads, Streets and Paving.

N. C., Greensboro—City Engr. Dept. outlined city wide sewer improvement program.

S. C., Anderson—City install sewer and water mains.

Tex., Navasota—City, plans extension to sewerage system.

Tex., Refugio—City votes Aug. 31 on \$160,000 bonds for sewers and paving; Hawley, Freese & Nichols, Engrs., San Antonio.

Va., Yorktown—Dept. of Interior, National Park Service, Colonial National Monument, receives bids Aug. 24 for constructing 6 comfort stations and 4 small sewage disposal systems. See Want Section—Bids Asked.

Telephone Systems

Mo., Kansas City, Mo.—Roy C. Farrell, Airport Mgr., plans installing airport radio station.

Okla., Oklahoma City—Blanchard Telephone Co., Inc., chartered; Otto Brown, 933 E. 20th St.

Texas—Dept. of Commerce, Washington, Clarence M. Young, Asst. Sec. in Charge of Aeronautics, establish Federal radio stations Houston and San Antonio, Tex.; Miami, Fla.; Titusville, Fla., and Mobile, Ala.

Textile Mills

Ala., Montgomery—Bradford Cotton Mills, reported, incorporated with \$100,000 capital, to succeed Montana Mills in West Montgomery; A. L. Bush, Montgomery, Sec.; H. B. Dowell, Prattville, V. P. and Gen. Mgr.

Ga., Columbus—Swift Spinning Mills, reported, let contract to W. C. Whitaker, 1121 First Ave., for boiler house; Robert & Co., Inc., Engrs., Bona Allen Bldg., Atlanta.

Ga., Columbus—Swift Mfg. Co., manufacturers of cotton goods and textile specialties, reported, let contract to A. K. Adams & Co., 542 Plum St., N. W., Atlanta, for extension to No. 2 building; 4 stories; 107x81 ft.; brick, standard mill construction; iron columns; steel joists; elevator; maple flooring; gravel roof; tower and monitor roof; John Hill, Engr., Healey Bldg., Atlanta.

N. C., Belmont—Belmont Fabric Co., was sold by bondholders who organized South Fork Mfg. Co., to take over the property; no steps taken at present time for improving or operating. 8-13

N. C., Charlotte—Countess Mfg. Co., George W. Head, Pres., will change name to Hart Mfg. Co.; move plant from N. Graham St. to Tillett Bldg., on E. Sixth St.; increase output; Harry S. Baum, Plant Mgr.

N. C., Gastonia—Ranlo Mfg. Co., installing 1 unit of 50 Jacquard looms for weaving tapestry at Ranlo Mill; yarn to be used in manufacture of these new material will be spun in Ranlo Mfg. Co.'s plants and dyed at company's processing plant at Modena Mill here. 7-30

N. C., High Point—Baxter Knitting Co., capital \$100,000, incorporated; C. B. Baxter, C. A. York, W. L. York.

N. C., Roxboro—John Watts' Sons Co., Philadelphia, Pa., (Turkish Towels, etc.), merged and took over Somerset Mills; moved Philadelphia plant to Roxboro; recently completed building; George W. Kane, Contr. 8-13

S. C., Gaffney—Irene Mills, reported, plan increasing capacity.

S. C., Greenville—St. John Mfg. Co., Inc., P. O. Box 1579, manufacturer and converter of cotton goods, plans equipping new building with steam heating plant for heat only. See Want Section—Machinery and Supplies. 8-13

Tenn., Chattanooga—Robert & Co., Inc., Archts. Engrs., Bona Allen Bldg., Atlanta, Ga., advises Davenport Hosiery Mill project will consist of additional floor to 11th St. plant, to accommodate boarding room, finishing room, modern dye plant; boiler room, 30x40 ft. will also be built; cost \$100,000; plans ready for bids Aug. 27. 8-13

Water Works

Details of water works improvements in connection with the many LAND DEVELOPMENT operations will be found under that classification.

Ark., Benton—State Hospital for Nervous Diseases, care Arkansas Construction Comsn., reported, having tentative plans prepared by Lund Engineering Co., Southern Bldg., Little Rock, for pumping plant on Saline River for water supply.

D. C., Washington—Following contractors estimating on reservoir Stanton Park, bids opened Aug. 31: J. B. McCrary Co., Atlanta, Ga.; George E. Wyne, 2539 Pennsylvania Ave., N. W.; W. F. Brenizer & Co., 1501 S. Capitol St., both Washington; Merritt, Chapman & Scott, Fidelity Bldg., Baltimore, Md. See Want Section—Bids Asked.

D. C., Washington—Sprague & Henwood, Inc., Chamber of Commerce Bldg., Pittsburgh, Pa., has contract for drilling well in Municipal Center area.

Ky., Grayson—Town, Howard K. Bell, Conslt. Engr., 727 McClelland Bldg., Lexington, receives bids Aug. 27 for water system. See Want Section—Bids Asked.

Ky., Richmond—City, reported, acquired Richmond Water & Light Co.'s property, including its gas franchise; plans improvements.

Md., Rockville—City, F. D. Aberd, reported, received low bid on pipe line and filter bed from Boyd & Goforth, Builders Bldg., Charlotte, N. C.; on tank, from Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.; on well, from Hagman Well Co., Vienna, Va.; Whitman, Requaardt & Smith, Engrs., Baltimore Trust Bldg., Baltimore. 8-6

Mo., Louisiana—City authorized appointment of committee to ascertain cost of municipally owned water works system.

Mo., New London—New London Water Co., granted permission by State Public Service Comsn., Jefferson City, for construction and operation water distribution system.

Okla., Chickasha—Robt. O. Bradley and Co., Conslt. Engrs., 1717 S. Seventh St., advise city awarded contract for water works to Standard Paving Co., 2119 E. 11th St., Tulsa, except for pumps, motors and wiring, which items have not been awarded. 7-23

S. C., Aiken—Comsn. of Public Works, Harry Sudlow, Supt., install pumping engine, etc. See Want Section—Machinery and Supplies.

Va., Bedford—Town, Mayor Gillaspie, considering water improvements, installation booster pump, lining reservoir, etc.

Va., Suffolk—Portsmouth Water Dept., Lake Kilby, Suffolk, W. L. Davis, Supt., plans electrifying main pumping plant.

Woodworking Plants

Ga., Brunswick—Georgia Veneer and Packing Co., construct \$16,000 building; 1-story, 200x110 ft., struc. steel frame, conc. found.; Windsor Construction Co., Contrs.; Francis L. Adreu, Archt.

Ga., Toccoa — Forrest Additon. Flowery Branch, acquired and will rebuild and equip with modern machinery the old Diana Furniture Factory; operation to begin as soon as plant is rebuilt; plans expending about \$40,000 on improvements.

S. C., Greenville—Zinn Beck Bat Co., 511 Pettigree St., Zenas C. Grier, Pres., reported, receiving bids for rebuilding manufacturing unit at Paris Station, lately burned at loss of \$25,000. 6-18

Tenn., Chattanooga—Tennessee Furniture Corp., R. T. Frazier, erecting brick addition to enameling plant; cost \$17,000; J. M. Allen & Co., Contr., Chamberlain Bldg.; W. H. Sears, James Bldg., and Percy B. Shepherd, 208 Windmere Drive, associate architects. 4-23

FIRE DAMAGE

Ark., Foreman—J. S. Miller's residence, south Foreman.

Ark., Little Rock—Evergreen Inn, 7 miles out on Little Rock-Hot Springs highway; owned by J. Kennedy.

Ark., Russellville—Ideal Theater, owned by Farmers Bank and Trust Co.

Fla., Jacksonville—Store of George W. Kennedy Furniture Co., Forsyth and Clay Sts.; \$12,000.

Ga., Ludowici—Turpentine still of C. A. Nobles.

La., Abita Springs—Abita Hotel; loss \$15,000.

Md., Crisfield—Robt. Howard's residence, State Rd. bet. Crisfield and Marion.

Md., Williamsport—Barn on farm of William Lefevre.

Miss., Hattiesburg—Plant of Woodruff Furniture Co., 125 W. Pine St.; loss \$100,000.

Miss., Crystal Springs—Charlie Moore's residence.

N. C., Burlington—Plant of Burlington Times, O. F. Crowson, Jr., Editor; loss \$60,000.

N. C., Goldsboro—Department store of W. Ellis, Center St.

Okla., Oklahoma City—Grocery store of R. O. Williams.

Tex., Corpus Christi—Store and dwelling, Leopard St. extension, owned by H. S. Guy; N. M. Harmon's residence, same location.

Tex., Vernon—Barn and feed plant on ranch of R. L. Castlebury, 10 miles south of Vernon.

Va., Lynchburg—R. P. Thornhill's residence; loss \$6,000.

Va., Roanoke—Portion of building of Lacey Edgerton Motor Co., 349 W. Campbell Ave.

Va., Winchester—Lumber yard of Glaze & Brother.

W. Va., Martinsburg—Bothwell Co.'s co-op-erage plant.

D. C., Washington—Everett S. Beall, Jr., 1261 New Hampshire Ave., N. W., has permit for 2 brick and frame dwellings, 44110-14 13th Place, N. E.; 2 stories; total \$15,000.

D. C., Washington—Independent Investment Co. has permit for 7 brick, tile and frame dwellings, 1334-46 Sheridan St., N. W.; 2 stories; total \$40,000.

D. C., Washington—Frank Teuton, care Jos. A. Parks, Archt., 1800 E St., erect residence, Aurora Hills; 2½ stories, copper and sheet metal work, slate roof, tile bath, oil burner, vapor hot air heat; receiving bids; address H. M. Barry Corp., 200 Arlington Ridge, Aurora Hills.

Fla., Miami Beach—Lester F. Preu, 3174 Sheridan Ave., erect residence, Sheridan Ave. near 34th St.

Fla., Miami Beach—Joseph Arvin Nelson, 2432 Irving Park Blvd., Chicago, Ill., reported, plans residence and garage, San Marino Island.

Fla., Miami Beach—Miss Sally Milgrim, 6 W. 57th St., New York, and care Milgrim, Inc., 738 Lincoln Rd., Miami Beach, reported, has plans by Carlos B. Schoeppl, Archt., Miami Beach, for residence, Prairie Ave., near 30th St. 6-11

Fla., West Palm Beach—Vincent Bendix, 705 W. Adams St., Chicago, Ill., and West Palm Beach, reported, receiving bids for \$350,000 residence, garage, servants' quarters, etc.; date not determined; rein. conc., struct. steel, hollow tile, brick, stucco, tile and terrazzo, wrought iron, bronze, cast stone, Cuban tile roof, Vitrolite partitions, 2 stories and basement; Volk & Maass, Archts., West Palm Beach; following, reported, estimating: Berry & Son, Inc., 1327 20th St., Miami Beach, Fla.; John B. Orr, Inc., 145 N. E. Sixth St., Miami; Chalker & Lund, Inc., N. Palm Beach Ave.; Arnold Construction Co., Murray Bldg.; Watt & Sinclair, of Fla., Inc., 256 Worth Ave., all Palm Beach; J. S. Willson Co., 604 S. Olive St.; C. J. Trevail, Citizens Bk. Bldg., both West Palm Beach. 7-30

Ga., Columbus—Mrs. Ernest Philips erect \$11,000 residence; brick veneer on frame, 1 story, 41x85 ft., hardwood, linoleum and tile floors, limestone, plaster board, asbestos shingle roof, steel sash and trim, ventilators; date of bids not determined; address T. Firth Lockwood, Archt., Murrah Bldg. 8-13

Ga., Moultrie—Dr. H. H. Trimble opens bids Aug. 27 for brick veneer and frame residence; 2 stories and basement, 65x83 ft., hardwood, linoleum and tile floors, conc. foundation, Mission tile roof, elect. refrigerators, plaster board, built-up roof, steel sash and trim, ventilators, wire glass, \$14,000; T. Firth Lockwood, Archt., Murrah Bldg., Columbus; following contractors estimating: General—W. J. Pippin; J. B. Brown, both Moultrie; W. C. Hinton, Cordele; Gordon A. Cox, Chula; J. B. Adams, Tifton; Mechanical—Darrell Doyle, Moultrie; Dougherty Plumbing & Heating Co., Albany. 8-13

Md., Baltimore—Walter Duval, care Fidelity & Casualty Company of New York, Balto. Trust Bldg., erect stone and frame residence, Homeland; 2 stories, about 36x46 ft.; E. H. Glidden, Archt., 18 E. Lexington St.

Md., Baltimore—John A. Payne, 3313 Westward Ave., plans 2 brick and stone dwellings, 5815-17 Bellona Ave.; 2 stories, 45x35 ft., hardwood, linoleum and tile floors, slate roofs, steel sash, interior tile; owner builds; total \$10,000.

Md., Baltimore—Isidore Salganik, 100 S. Exeter St., erect residence, Menlo Park; Geo. R. Callis, Archt., Melvin Ave., Catonsville; bids Aug. 15.

Mo., St. Louis—Grandmer Realty Co., Box 45, Clayton, erect 4 brick dwellings, 6101-11 Adkins St.; 1 story, 24x40 ft., comp. roofs, hot air heat; total \$16,000.

Tex., River Oaks—Murray B. Jones erect \$20,000 residence, 3229 Del Monte Drive, River Oaks; brick veneer.

Va., Flint Hill—Wallace D. Kenyon erect guest hunting lodge; Luther E. Warner, Archt., Grace St. Bank & Trust Bldg., Richmond.

Va., Middleburg—Robt. E. McConnell, 11 Wall St., New York, reported, receives bids Aug. 24 for residence; brick, stone, 2 stories, 139x44 ft., conc. block foundation, tile, marble, struct. steel and iron, kalamein doors and trim, sheet metal, linoleum, shingle and comp. roof, vapor heat, gypsum blocks, waterproofing; Penrose V. Stout, Archt., 420 Lexington Ave., New York; following contractors estimating: North-Eastern Construction Co., 6 W. Madison St., Baltimore, Md.; Davis, Wick, Rosengarten Co., 1408 G St.; C. A. Langley Co., 1509 Connecticut Ave., both Washington, D. C.; Claiborne & Taylor, Inc., Broad Grace Arcade Bldg.; J. R. Jones & Conquest, Cent. Natl. Bank Bldg., both Rich-

BUILDING NEWS

BUILDINGS PROPOSED

Bank and Office

La., New Orleans—Branches, Inc., opens bids Aug. 24 at office Jones, Roessle & Olsch-ner, Archts., Maison Blanche Bldg., for Memory Market Branch Bank Bldg., Tulane Ave. and Lopez St.; masonry, 1 story, 31x62 ft., rein. conc. foundation, steel, granite, limestone, stone tile, built-up comp. roof, sheet metal, metal grilles, steel sash, dampproofing, stucco, marble, terrazzo and tile work, iron and bronze doors, metal bank fixtures, bronze lettering, etc.; radiators by owner; following contractors estimating: J. Woodworth, Co., Maritime Bldg.; Geo. J. Lupo, 2231 Mi-6017 Vicksburg St.; Reimann Construction lan St.; Saputo & Governali, 823 Perdido St.; H. Pratt Farnsworth, Canal Bk. Bldg.; Alvin M. Fromherz, Q. & C. Bldg.; Lionel H. Favret, Louisiana Bldg.; Gervais F. Favrot, Balter Bldg.; Herman T. Makofsky, 3034 Palmyra St.

Md., Baltimore—Southern Life Insurance Co., 1423 Pennsylvania Ave., opens bids Aug. 21 for alterations to bldg., 1841 Pennsylvania Ave.; about \$10,000; David Harrison, Archt., 3735 Reisterstown Rd.; following contractors estimating: A. Goodman, 2000 Whittier Ave.; H. Roldman, 1701 Warwick Ave.; Wm. Ehrlick, 1819 N. Pulaski St.; L. Mizrach & Son, 2314 Edgemont Ave.

Tenn., Cleveland—Merchants Bank, C. W. Harle, Pres., erect \$30,000 bldg.; Tennessee marble, 2 stories, marble and bronze bank screen; Thomas West Gardner, Archt., 1901 Church St., Nashville; plans ready Aug. 24.

Churches

Mo., Kansas City—Southeast Presbyterian Church, W. S. Tuley, Chmn., Bldg. Comm., erect Gothic type bldg., 36th St. and Indiana Ave.; \$20,000, seat 500; brick, cut stone trim, slate roof; work start latter part of Summer or in Fall on \$40,000 nave, chancel and goodfellowship room; Sunday school wing later; Felt, Dunham & Kriehn, Archts., 300 W. 47th St.; completing plans.

Mo., Normandy—Normandy Presbyterian Church plans \$45,000 church, Pasadena Park.

Okla., Hominy — Methodist Episcopal Church, Rev. M. D. Tomlin, Pastor, plans \$10,000 bldg.; brick and stone, 1 story; Edw. F. Jansson, Archt., 740 Rush St., Chicago, Ill.; call for bids in few days.

City and County

La., DeQuincy—Town Council has low bid from P. Olivier & Son, 114 Bilbo St., Lake Charles, to remodel city hall and erect jail; about \$20,000; R. S. McCook, Inc., Archt., First Natl. Bk. Bldg., Lake Charles. 8-6

Okla., Stigler—Haskell County Bd. of Com-mrs., D. A. McDaniel, County Clk., having preliminary plans drawn by Walter T. Vahl-berg, Braniff Bldg., Oklahoma City, for \$75,000 court house; brick, stone and rein. concrete. 6-19

Okla., Waurika—Jefferson County Bd. of Com-mrs., E. J. Beau, member, having plans drawn by Layton, Hicks & Forsyth, Braniff Bldg., Oklahoma City, for court house; brick, stone and rein. conc., 4 stories and basement, 66x66 ft.; jail on top floor. 6-4

Tex., Fort Worth—City, Geo. Fairtrace, City Mgr., considers remodeling old central fire station, Throckmorton, Monroe and Eighth Sts., for police station and jail equip-ment, etc.; \$30,000.

Tex., Longview—Gregg County votes Aug. 22 (deferred date) on \$200,000 court house and jail bonds. 7-30

W. Va., Clarksburg — Harrison County Com-mrs.' Court receives bids Aug. 31 for \$700,000 court house; details Aug. 13; Walker & Weeks, Archts., 11001 Euclid Ave., Cleve-land, O.; Carleton C. Wood, Asso. Archts., Lowndes Bldg., Clarksburg; following con-tractors estimating: James J. Barnes, Logans-port, Ind.; C. W. Hancock & Sons, Inc., 1010 Robson-Fritchard Bldg., Huntington, W. Va.; National Contracting Co., 2114 Foshay Tower, Minneapolis, Minn.; Hutter Construction Co., Fond du Lac, Wis.; Dunlap & Co., Inc., Columbus, Ind.; Baker & Coombs, Morgan-town, W. Va.; Boone, Eason & Wood, Inc., Law & Commerce Bldg., Bluefield, W. Va.; L. W. Hancock, Inc., 701 Trust Bldg., Louis-ville, Ky.; Robt. H. Evans & Co., 395 E. Broad St., Columbus, O.; Sneed Construction Co., Clarksburg, W. Va.; Engstrom & Wynn, Inc., 1117 Chapline St., Wheeling, W. Va.; David T. Riffe, 1006-08 Forbes St., Pitts-burgh, Pa.; Heller Bros. Co., Youngstown, O.; Hunkin-Conkey Construction Co., 1740 E. 12th St., Cleveland, O.; Southern Ferro Concrete Co., 70 Ellis St., Atlanta, Ga.; M. A. Long Co., 10 W. Chase St., Baltimore, Md.; Geo. A. Fuller Co., Munsey Bldg., Wash-ington, D. C.; C. A. Moses Construction Co., 176 W. Adams St., Chicago, Ill.; Carmichael Construction Co., 148 E. Miller Ave., Akron, O.; J. F. Barbour & Sons, Colonial-American Natl. Bank Bldg.; D. J. Phipps, 212 Main St., Waseana, both Roanoke, Va.; Green & Stowe, Welch, W. Va.; Mellon-Stuart Co., Oliver Bldg., Pittsburgh, Pa. 8-13

Dwellings

D. C., Washington—J. W. Farran, 335 Maryland Ave., N. E., has low bid from C. W. Gosnell, 1727 K St., N. W., for residence, 333 Maryland Ave., N. E.; B. Stanley Sim-mons, Archt., 1627 Lamont St., N. W.

mond, Va.; W. J. Hancock, Warrenton, Va.; Matthews Construction Co., 285 Madison Ave., New York; D. B. Allison, Box 44, Middleburg; lighting fixtures, refrigerators, ice-making units, roads, decorating reserved. 8-6

Government and State

Ala., Sylacauga—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., has low bid at \$43,000 from George Spruill, 646 Pelham Rd., Atlanta, Ga., for post office; low bidder lately incorrectly reported. 8-13

Ark.-Tex., Texarkana—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids in duplicate Aug. 27 to clear site of present post office, court house, etc.; drawings from office Supvg. Archt.; new structure \$750,000; Witt, Seibert & Halsey, Archts., Texark. Natl. Bk. Bldg., Texarkana. 4-9

D. C., Washington—Architect of The Capitol, David Lynn, opens bids Sept. 16 for new wing along First St. connecting 2 wings of Senate Office Bldg.; bldg. 291x71 ft., 5 stories, design conform to present bldg.; \$3,079,350 available; Wyeth & Sullivan, Archts., 16 Jackson Place. 4-16

D. C., Washington—Architect of the Capitol, David Lynn, opens bids Sept. 17 for house, walks, installation of underground sprinkler system, street lighting system, etc., in connection with U. S. Botanic Garden; plans after Aug. 22 from Mr. Lynn. 4-16

D. C., Washington—Navy Dept., Bureau of Yards and Docks, receives bids Aug. 26 for time clock vault, Naval Observatory; brick, conc., hollow tile, limestone, copper roof, cork insulation. 7-23

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids Sept. 8 for foundations, etc., of \$10,000,000 Department of Justice Bldg.; Zantinger, Borie & Medary, Archts., Otis Bldg.; Isaac Hathaway Francis, Heating-Plumbing-Wiring Engr., 1520 Locust St., both Philadelphia, Pa.; Gravel & Duncan Lewis, Struct. Engrs., Tower Bldg., Washington. 4-9

Fla., Miami—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids in duplicate Sept. 15 for constr., except excavation and foundations, and elevators, etc., for post office, court house, custom house, etc.; \$2,080,000; faced with Quarry Key stone, hollow tile back, Italian Renaissance type, tile roof, 3 stories and basement, 254x215 ft., 44x70-ft. Federal court room with acoustical stone above wainscot, marble floor and 15- to 18-ft. marble wainscot in lobby, interlocking wood block, tile and terrazzo floors, forced ventilation system, air purification system; Phineas E. Paist & Harold D. Stewart, Archts.; L. Murry Dixon, Asso. Archt., all Ingraham Bldg., Miami, and Ponce de Leon Entrance Bldg., Coral Gables, Fla.; Maurice H. Connell, Mech. Engr., McAllister Hotel Bldg., Miami; Harvey Baxter, Struct. Engr., 518 Harding St., P. O. Box 65, Coconut Grove, Miami; drawings from office Supvg. Archt. 8-13

Ky., Barbourville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., has low bid at \$49,900 from James I. Barnes, Logansport, Ind., for post office. 8-6

Ky., Lexington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids Aug. 21 for clearing site for \$761,000 court house and post office; Churchill & Gillig, Archts., Fayette Bank Bldg., Lexington; drawings from office Supvg. Archt. 8-6

La., Alexandria—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., selected Fifth, Sixth, Murray and Johnston Sts. as site for \$275,000 post office. 3-26

La., Barksdale Field, Shreveport—Constructing Quartermaster, Barksdale Field, call for bids in few days for \$15,000 fire station, \$40,000 gymnasium, \$32,000 guard house, \$20,000 gasoline and oil storage bldg., and paving aprons, \$83,000. 7-23

Mo., Caruthersville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids in duplicate Sept. 4 for \$80,000 post office; drawings from office Supvg. Archt. 8-6

Mo., Jefferson Barracks, St. Louis—Constructing Quartermaster has low bid at \$10,422 from J. A. Moran & Owens Co., 144 W. 47th St., Chicago, Ill., for 1 set non-commissioned officers' quarters. 8-6

N. C., Mt. Olive—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids in duplicate Sept. 9 for post office, etc.; drawings from office Supvg. Archt.; \$65,000. 8-6

N. C., High Point—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., approved sketches for \$400,000 post office, S. Main, E. Green and S. Wrenn Sts.; Eccles D. Everhart, 164 S. Main St., and Louis F. Voorhees, 1113 Greenway, Archts., both High Point; James M. Workman, Engr., Amer. Bk. Bldg., Greensboro, N. C.; A. B. Boynton, Mech.-Elect. Engr., Durham. 6-4 and 7-2

N. C., Lumberton—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., opens bids Sept. 11 for post office, etc.; drawings from office Supvg. Archt. 8-6

Okla., Hobart—Prospective estimators on post office, etc., bids Aug. 25 by Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C.: Theriault Contracting Co., 534 E. Johnson St., Philadelphia, Pa.; H. H. Shell & Son, Lubbock, Tex.; Chas. Weitz' Sons, Inc., 713 Mulberry St.; Wickes Engineering & Construction Co., 1441 Bluff St., both Des Moines, Iowa; W. D. Lovell, 1415 Eighth St., S. E., Minneapolis, Minn.; H. W. Underhill Construction Co., 235 N. Waco Ave., Wichita, Kan.; Holmboe Construction Co., 320 Petroleum Bldg., Oklahoma City, Okla.; W. R. Grimshaw Co., Philcade Bldg., Tulsa, Okla.; Cooke & Maxey, Shawnee, Okla.; Hiram Lloyd Building & Construction Co., Synd. Trust Bldg., St. Louis, Mo.; Upchurch Construction Co., Montgomery, Ala. 8-6

Okla., Norman—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., probably have plans ready for bids about Oct. 1 for \$160,000 Federal building. 1-22

S. C., Columbia—South Carolina State Penitentiary Bd. of Directors, Jas. N. Pearman, Supt., receives bids until Aug. 26 for 3-tier steel cell block; plans from Supt. 7-2

Tenn., Chattanooga—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., approved preliminary plans for \$1,500,000 Federal bldg., Georgia Ave.; white marble, 4 stories, 246x142 ft., 2 main entrances, 2 penthouses; R. H. Hunt Co., Archt., James Bldg., Chattanooga; Shreve, Harmon & Lamb, Asso. Archts., 7 E. 44th St., New York. 4-9

Tenn., Jackson—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., securing site for \$350,000 post office. 8-13

Tenn., Beaumont—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., selected Fred C. Stone, Goodhue Bldg., Douglas and F. W. Steinman, San Jacinto Life Bldg., all Beaumont, as architects for \$650,000 Federal bldg., Willow St. 7-30

Tenn., Brownsville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., has low bid at \$329,000 from A. J. Rife Co., 1913 N. Harwood St., Dallas, Tex., for post office, court house and custom house. 8-13

Tenn., Fort Worth—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., selected W. G. Clarkson & Co., First Natl. Bank Bldg., Fort Worth, and Paul P. Cret, Architects Bldg., Philadelphia, Pa., as asso. architects for \$1,215,000 court house. Tenth, Burnett and Lamar Sts. 7-16

Tenn., Randolph Field—Constructing Quartermaster opens bids Sept. 1 for kitchen equipment in Headquarters mess and recreation hall, Flying Cadet Group; \$10,500 appropriation. 7-23

Tenn., Wichita Falls—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., approved plans for \$750,000 Classic type Federal bldg., Lamar St. near Tenth St.; plans not completed; limestone, 3 stories and basement, 203x129 ft., metal exterior sash and doors, fireproof steel interior, marble, terrazzo and hardwood floors, oak and walnut trim, hollow tile partitions; Voelcker & Dixon, Inc., Archts., Perkins-Snyder Bldg., Wichita Falls. 5-28

Va., Langley Field, Hampton—Constructing Quartermaster opens bids Aug. 28 for heating plant for barracks; \$100,000, 38x63 ft., pipelines. 7-30

Tenn., San Antonio—War Dept., Washington, erect caretaker's lodge, cemetery walls, road and walks in National Cemetery, Austin Rd. 8-6

Va., Langley Field, Hampton—Constructing Quartermaster has low bid at \$190,834 from Brooklyn & Queens Service Co., 17 Williams Ave., Brooklyn, N. Y., for 14 single company officers' quarters; \$175,000 available; may call for new bids. 8-6

Va., Lorton—Dist. Commrs., Dist. Bldg., Washington, open bids Aug. 26 for work in 2 cellhouses at D. C. Reformatory; data from Room 427 Dist. Bldg. 8-6

Hospitals, Sanitariums, Etc.

Ark., Hot Springs National Park—Constructing Quartermaster, Army and Navy General Hospital, opens bids Sept. 10 for foundations, etc., for \$1,500,000 hospital; work includes demolition, excavation, filling, grading conc., stone and plumbing work; \$450,000 available. 6-4

Ga., Augusta—Veterans Administration, Room 764, Arlington Bldg., Washington, D. C., opens bids Sept. 22 for clinical bldg., U. S. Veterans Hospital, including roads, walks, grading and drainage; work includes excavating, rein. conc., hollow tile, brick work, architectural terra cotta, marble, floor and wall tile, rubber tile, compressed asphalt, tile and linoleum floors, terrazzo, iron work, steel sash, steel stairs with slate treads, steel shelving, cabinets and partitions, slate, metal and built-up roofing, roof ventilation, lightning conductor, metal lathing, plastering, sound deadening, metal weatherstrips, insect screens, window shades, painting, glazing, elect. elevators, etc., and outside sewer, water, gas, steam and elect. service connections; separate bids for elect. elevators; drawings from Constr. Service, Room 764. 7-9

Md., Catonsville, Baltimore—Spring Grove State Hospital, Dr. Robt. E. Garrett, Supt., receiving bids on \$200,000 brick power house; bids due Aug. 31; Henry Powell Hopkins, Archt., 10 E. Mulberry St.; Jas. Posey, Engr., Balto. Tr. Bldg., both Baltimore. 5-21

Miss., Jackson—State Hospital Removal, Improvement & Land Sale Comsn. receives bids until Sept. 4 for Negro Group No. 3, \$5,000,000 Mississippi Insane Hospital; tuberculosis bldg., disturbed patients' cottages Nos. 1 and 2, recreational bldg. and receiving bldg.; also receives bids same date for steam tunnels for all negro groups; plans from N. W. Overstreet, Archt., Standard Life Bldg., Jackson; Vinson B. Smith, Advisory Archt., Gulfport. 8-13

N. C., Oteen—United States Veterans Bureau, Room 764, Arlington Bldg., Washington, D. C., has low bid at \$134,000 from John M. Geary Co., Arcade Bldg., Asheville, N. C., for boiler house and conc. chimney. U. S. Veterans Hospital. 8-6

S. C., Abbeville—Abbeville County Memorial Hospital rejected bids to remodel bldg. damaged by fire; new bids Aug. 19; \$30,000; fireproof; new interior; X-ray room; Charles W. Fant, Archt., 121½ N. Main St., Anderson. 6-18

Va., Richmond—Department of Public Welfare, Dr. W. Brownley Foster, Director, probably let contract about Sept. 1 for \$80,000 tuberculosis pavilion, Pine Camp Sanatorium; 50 beds; Carneal, Johnston & Wright, Archts., Electric Bldg. 6-11

Hotels and Apartments

Fla., Miami Beach—Herbert W. Heath, 600 Ocean Dr., erect 3-story apartment, 630 Ocean Dr.; rein. conc., conc. block and stucco; receiving bids from Continental Construction Co., Exchange Bldg.; Fred Howland, 1600 N. W. 14th St., both Miami; J. Albert, 1029 Euclid Ave.; O'Neill-Orr Co., 604 Fifth St., both Miami Beach; E. R. Lindabury, 744 Jefferson Ave., Miami Beach. 8-6

Fla., Miami Beach—Harry Isaacs, 1631 S. W. 16th St., Miami, has plans completed for two 4-unit apartment houses; each 42x90 ft., rein. conc., conc. block and stucco; Henry J. Moloney, Archt., 802 Professional Bldg., Miami. 8-6

Fla., Miami Beach—Edward W. Fisher, Third and Cherry Sts., Reading, Pa., reported, has working plans in progress by C. B. Schoeppl, 2382 N. Alton Road, Miami, for \$50,000 apartment; 3 stories. 8-6

Fla., Miami Beach—S. R. Carroll, 1350 Collins Ave., plans 4-unit apartment; 2 stories, stucco; \$12,000. 8-6

Ga., Lyons—Elberta Hotel, E. M. Smith, having plans prepared by Lloyd Greer, Valdosta, for 2-story and basement, brick hotel; comp. roof, 20 rooms and 15 baths. 8-6

La., Hammond—Malcolm Wright, Sr., selected Favrot & Livaudais, Hibernia Bldg., New Orleans, as architects for proposed Otis Hotel, site of old Oaks Hotel property. 8-6

La., New Orleans—J. M. Nettles, 2722 Robert St., receives bids Aug. 25 at office of Andrew M. Lockett, Jr., Archt., Balter Bldg., for duplex apartment, Fontainebleau Dr. and Versailles Blvd.; 30x66 ft., Oriental stucco, rein. conc. foundation, tile roof, tile baths, hardwood floors, hot water heaters, built-in features, warm air heating system; following estimators: George J. Lupo, 2231 Milan St.; Reilly-Ruckstuhl, Inc., 423 Carondelet St.; J. A. Haase, Jr., 916 Union St.; C. A. Thiery, 2333 Valmont St.; Peter Boudages, 2719 Lavender St.; Eugene Barousse, Orleans Parkway. 8-6

La., Plaquemine—Mrs. E. Hirsch plans 4-apartment house, Eden St.; brick veneer, Spanish architecture.

Miscellaneous

Fla., Miami Beach—Wm. F. Whitman, 3201 Collins Ave., reported, planning cabana colony in connection with Indian Creek apartment building now under construction; Roy F. France, Archt., 932 Alton Rd.

Fla., Tampa—Philip Licata, 1717 E. Broadway, erect semi-open air cafe and restaurant, east end 22nd St. causeway; 20-ft. veranda, large indoor dining room, semi-private dining rooms; clear bathing beach of rocks and shells; Herbert French, Archt.

Ga., Savannah—R. C. Ulmer & Co., Waycross, erect funeral home, 37th and Drayton Sts.

Md., Baltimore—Stonewall Democratic Club, through Gilbert A. Dailey, Pres., advises do not expect to begin work on clubhouse until Spring. 7-16

Md., Easton—Cedar Point Yacht and Country Club, Borden D. Whiting, to organize; erect clubhouse, pier, plan golf course.

Tenn., Chattanooga—S. & W. Cafeteria, Frank O. Sherrill, 1201 Dilworth Road, award contract about last of September for alterations to building, 822-824 Broad St. and 823 Market St.; 40x20 ft.; 2 stories; dumb waiters, elec. refrigerators, tile floors, marble, sprinklers, hollow tile, ventilators; \$40,000; H. M. Miller, Shenandoah Life Bldg., Roanoke, Va., and C. T. Jones, James Bldg., Chattanooga, Tenn., associate architects. 8-13

Railways Stations, Sheds, Etc.

Okla., Oklahoma City—Atchison, Topeka & Santa Fe Ry., H. W. Wagner, Ch. Engr., Topeka, Kans., have plans out about Sept. 1 for depot and track elevation project. 5-28

Va., Norfolk—Norfolk & Western Ry. Co., W. P. Wittsee, Ch. Engr., Roanoke, purchased block of property north of Water St. and east of Church St.; plans erecting buildings for produce and fruit terminal; total expenditure \$250,000.

Tex., Fort Worth—Texas and Pacific Railway Co., E. F. Mitchell, Ch. Engr., Dallas, opened bids Aug. 20 for outbound freight house and trucking platform; brick, steel, tile steel sash, corrugated asbestos roof, kalomelin doors, vapor vacuum heat; opens bids Aug. 22 for mail handling and trucking platforms and train sheds; private plans.

Schools

Ark., Fayetteville—University of Arkansas, Dr. John C. Futrall, Pres., probably let contracts for \$350,000 Chemistry Hall; 3 stories, 265x104 ft., stone exterior, contain biological and zoological branches and laboratories; Wittenberg & Deloney, Archts., Home Ins. Bldg.; Jamieson & Spearl, Conslt. Archts., Arcade Bldg., St. Louis, Mo.; also for library, Haralson & Nelson, Archts., Merchants Bank Bldg., Fort Smith. 5-28

Ark., Little Rock—University of Arkansas, Dr. John C. Futrall, Pres., Fayetteville, probably ask bids early in Fall for \$275,000 Medical Building, 13th and McAlmont Sts., Little Rock; stone and rein. conc., 5 stories, 197x67 ft.; H. Ray Burks, Archt., Wallace Bldg., Little Rock. 5-28

D. C., Washington—Columbus University acquired 4-story Lansing residence, 1323 18th St., N. W.; remodel.

Ga., Jackson—Jackson County Bd. of Education, T. T. Denton, erect \$12,000, one-story and basement, brick veneer, 6-room and auditorium school; comp. roof; plans by State Dept. of Education, State Capital, Atlanta.

Ga., Rome—George Spruill, Moore's Mill Road, Atlanta, and Daniel Lumber Co., La Grange, additional bidders on 1-story and basement, 117x55 ft., brick veneer Eighth Ward elementary school, bids Sept. 4 by Bd. of Education, Sam King, City Mgr. 6-18 and 8-13

Ga., Rome—Contractors estimating on school, bids received Sept. 4 by Bd. of Education, S. F. Magruder, Sec.; C. M. Alexander, J. A. Formby, W. P. Bradfield, J. F. Durree & Son, Chas. Blackstock & Co., B. F. Camp & Son; 1 story and basement, 117x55 ft., conc. foundations, brick veneer walls, conc. and wood floors; Lockwood & Poundstone, Archts., 101 Marietta Bldg., Atlanta. 9-13

La., Dupont—Avoyelles Parish School Bd., Marksville, has low bid of \$12,901 from Sam Ducote, Cottonport, for school. 8-13

La., Marksville—Avoyelles Parish School Bd. receives separate bids Aug. 25 for one-story stucco classroom and auditorium addi-

tion to school at Bordelonville and one-story, brick, 4-classroom and auditorium addition to Simmesport school; following contractors estimating: Edgar Laborde, Marks-ville; J. B. Mouton, Lafayette; Sam Decote, Cottonport; W. J. Quick, 424 Bilbo St., Lake Charles; E. E. Rabalais, Bunkie; Tudor & Ratcliff, Commercial Bank Bldg., Alexandria; Pesnell Brothers & Mitchell, Ruston. 7-30 and 8-13

La., St. Joseph—Tensas Parish School Bd., V. C. Rives, Supt., receives bids Aug. 25 for school building. 8-6

Md., Annapolis—Anne Arundel County School Comms., George Fox, Sec., has low bid from Samuel B. Dove, Annapolis, for schools at Jacobsville, Oldton, and Arnold; W. H. Emory, Jr., Baltimore Trust Bldg., and Buckley & Fenhagen, 325 N. Charles St., both Baltimore, architects. 7-30

Md., Annapolis—Anne Arundel County, Geo. Fox, Sec. School Comms., preparing plans for 3-story brick high school; have plans ready about Sept. 1 for 2-story, frame grade school at Millersville; also for 2-story, hollow tile and stucco grade school additions; W. H. Emory, Jr., Baltimore Trust Bldg., and Buckley & Fenhagen, 325 N. Charles St., both Baltimore, Assoc. Archts.

Md., Baltimore—Dept. of Education, Office of Bd. of School Comms., opens bids Aug. 26 for alterations for shower equipment, School No. 293, Howard and Centre Sts.; for furnishing and installing hot water heater and tank, School No. 292; for miscellaneous supplies for various schools; for cafeteria for Northeast Baltimore Junior high school and for East Baltimore Colored Junior High School.

Md., Baltimore—Board of Public Improvement Comsn., H. J. Leimbach, Supvg. Engr., City Hall, has low bids for school playground improvements: Gardenville School, Erhart & May, 5723 Harford Ave., at \$7538; Govans School, Erhart & May, \$6517; Violetville School, Leo J. McCourt, 861 Greenmount Ave., \$12,607; Polytechnic Institute, Potts & Callahan, Knickerbocker Bldg., \$4864. 7-30

Md., Baltimore—Mackenzie and Cross, 415-16 Professional Bldg., preparing working drawings and specifications for school for handicapped white children, Wheeler, Warwick and Windsor Aves., near North Ave.; Reeder, Iser & Akers, Mech. Engrs., 916 N. Charles St.; Henry Massart, Struc. Engr., 328 N. Charles St.; H. J. Leimbach, Supvg. Engr., Public Improvement Comsn., Room 324 City Hall. 8-13

Md., Pomonkey—Charles County School Comms., F. Bernard Gwynn, Supt., La Plata, ready for bids about Sept. 1 for school; J. M. Armstrong, Archt., 15 Franklin St., Annapolis. 8-13

Miss., Fayette—Jefferson County, M. C. Harper, Supt. of Education, opens bids Aug. 31 for converting auditorium into residence and removing present old school to new site and reconditioning.

Miss., Jackson—Millsaps College, Dr. D. M. Key, Pres., extended date for W. M. Buie physical education building; one story, basement and sub-basement, 170x110 ft., rein. conc. and brick; 16,000 sq. ft. floor space; two gymnasiums, one with capacity of 2500 spectators, use for auditorium when required; H. Austin, Archt., 321 Daniel Bldg. 8-6

N. C., Charlotte—State Board of Education approved application of Mecklenburg County, Frank Edmondson, School Supt., for \$50,000 loan to construct Negro school to replace Myers St. building. 7-30

Okla., Pryor—Irving Williams, 315 E. 18th St., Tulsa, low bidder on dormitory.

Tenn., Fountain City—Knox County School Bd., Knoxville, received low base bid at \$141,950 from V. L. Nicholson Co., 102 W. Clinch Ave., Knoxville, for Central High School; 20 rooms and auditorium; Baumann & Baumann, Archts., 815 Market St., Knoxville.

Tenn., Knoxville—Knox County Bd. of Education has low bid at \$11,500 from V. L. Nicholson Co., for 2-room and auditorium addition at Inskip; Manley & Young, Archts., Medical Arts Bldg.; at \$2096 from C. C. Raby, Concord, for 2-room building at Boyd's and at \$2664 from H. E. Rogers for school at Riverdale. 6-25

Tenn., Knoxville—University of Tennessee, Dr. H. A. Morgan, Pres., receives bids Aug. 27 for Physical Education building; \$300,000; 2 stories and basement, 115x300 ft., rein. conc. and struc. steel, brick and tile walls, stone trim, comp. roof, hardwood, tile and terrazzo floors, steam heat; following estimators: Rogers & Leventhal, Inc., 826 11th St.; John Parks, Hamilton Natl. Bank Bldg.; Mark K. Wilson, Power Bldg., all Chattanooga; Weaver & McGill, General Bldg.; A. H. Whisman, 422 Front St.; V. L. Nicholson

Co., 102 W. Clinch Ave.; A. R. McMurtry, Island Home; J. M. Dunn & Son, 245 N. Broadway, all Knoxville; Fiske-Carter Construction Co., 121½ W. Main St., Spartanburg, S. C.; Angle-Blackford Co., American Bank Bldg., Greensboro, N. C. 7-30

Tenn., Nashville—Board of Education erect high school; building, \$400,000; furnishings, \$30,000; 270x210 ft., 3 stories, conc. frame and brick walls, pier foundation, pitch and gravel roof; elect. refrigerators; hardwood, terrazzo, tile and comp. floors; marble, metal doors, rolling partitions, hollow tile, ventilators, wire glass, brass and bronze work; Marr & Holman, Archts., 702 Stahlman Bldg.

Tenn., Whitehaven—Shelby County School Board, Dr. Sue Powers, Supt., Memphis, have working plans completed in about two weeks by George Mahan, Jr., and Everett Woods, Assoc. Archts., City Savings Bank Bldg., Memphis, for \$125,000 school; 22 classrooms and cafeteria with seating capacity of 400 pupils; 208x145 ft., 2 stories, rein. conc. construction, brick and stone exterior. 8-6

Tex., Austin—State Bd. of Control, Claude D. Teer, Chmn., receives bids Aug. 25 for dormitory No. 13 and additions to store and office building at Austin State School for Feebleminded; \$50,000, 2 stories, brick, struc. clay tile, rein. conc. frame, stone, built-up roof, conc. wood, tile and terrazzo floors; separate bids on heating, plumbing and electric wiring; H. F. Kuehne, Archt., Littlefield Bldg. 8-13

Tex., San Antonio—Bd. of Education, Mrs. J. E. King, Pres., has low bid at \$9200 from Texas Automatic Sprinkler Co., Santa Fe Bldg., Dallas, for sprinkler systems and at \$1498 from Thomson Electric Co., for electric work for following schools: Main Ave., Breckenridge and Douglas High Schools, Mark Twain, Nathaniel Hawthorne, Edgar Allan Poe, Joel Chandler Harris, Sidney Lanier, Washington Irving Junior High Schools; Phelps & Dewees, School Archts., Gunter Bldg.

Tex., San Antonio—Bd. of Education, Le-vaca and Matagorda Sts., having plans prepared for elementary school, Blanco Rd.; semi-fireproof, 35x110 ft., 2 stories, wood and conc. floors, conc. foundation, built-up tar and gravel roof; cast stone, hollow tile, brass and bronze.

Tex., San Antonio—Board of Education having sketches prepared by Wilder & Smith, Texas Theater Bldg., for Palm Heights elementary school, Hoover St.; Phelps & Dewees, School Archts., Gunter Bldg.; L. D. Royer, School Mech. Engr.

Tex., San Antonio—Bd. of Education construct physical education facilities under present Joel Chandler Harris Junior School, 325 Pruitt Ave.; 30x100 ft., brick, rein. conc.; lockers and showers; Walter H. Anderson, Archt., Travis Bldg.; Phelps & Dewees, School Archts., Gunter Bldg.; L. D. Royer, School Mech. Engr., Smith-Young Tower. 7-16

Stores

D. C., Washington—Stephen Gatti Estate, L. P. and J. E. Gatti, 5101 Connecticut Ave., N. W., has permit for one-story, brick and stone business building, 5609-11 Georgia Ave., N. W.

Fla., Macclenny—J. C. Mackey erect 2-story building on Lake City Road; 4 storerooms on first floor.

Fla., Miami—Brandt Corp., Herman Brandt, 695 N. E. 77th St., reported, plans stores, Biscayne Blvd. near 77th St.

Fla., West Palm Beach—J. G. McCrory Co., 1107 Broadway, New York, erect addition, Clematis St.; 25x125 ft.; bis in; Ray Iverson, Local Mgr.

Md., Baltimore—J. C. Spedden, 2715 Harlem Ave., advises not going ahead with alterations to store and apartment, 4605 Eastern Ave., for Harry Joffrey. 8-13

Md., Baltimore—Albert Burkner, 211 S. Charles St., erect 3 stores, 3904 Gwynn Oak Ave.; 1 story, 70x25 ft. each.

Md., Baltimore—Hutzler Brothers received bids Aug. 21 for addition to department store, Howard St.; brick, stone trim, 6-story and basement; Office of Joseph Evans Sperry, Archt., Calvert Bldg.; Herman Doleman, Struc. Engr.; James Posey, Mech. Engr., both Baltimore Trust Bldg. 7-30

Tex., Houston—Henke & Pillot, Inc., 302 Milam St., acquired site on Alameda; erect department food store.

Okla., Tulsa—Sears, Roebuck & Co., Chicago, acquired Halliburton-Abbott Co.; enlarge present departments, add 10 new ones.

Tex., San Antonio—Jake Jarmon leased property, Fredericksburg Rd. at Zarzamora St.; probably erect business building.

Tex., Taylor—Fred Joseph erect one- and two-story, 125x55 ft., brick, struc. clay tile, struc. steel and rein. conc. store and office building to be leased to Texas Public Service Co.; built-up roof, metal ceiling, stucco, cement, terrazzo and wood floors; Giesecke & Harris, Archts., Norwood Bldg., Austin; bids in Aug. 22. 8-6

Theatres

Tenn., Memphis—Dave Derman Co., Derman Bldg., reported representing organization planning erection of \$250,000 theater, advises that report is only newspaper rumor.

Warehouses

D. C., Washington—Following additional estimators on \$1,000,000 Federal warehouse, Seventh, Ninth, C and D Streets, bids received Aug. 28 by Office of Public Buildings and Public Parks, Lt. Col. U. S. Grant III, Director, 1031 Navy Bldg.; W. P. Thurston Co., Inc., Richmond; Charles Shurtz and Sons Co., 1900 Euclid Ave., Cleveland, O.; Virginia Engineering Co., Inc., First Natl. Natl. Bank Bldg., Newport News, Va.; Henry L. Maas & Sons, Inc., 1119 Ensor St., Baltimore, Md.; Lovering-Longbottom Co., 116

N. Fourth Ave., Ann Arbor, Mich.; L. Balkin & Co., 1850 W. Austin Ave.; Western Foundation Co., 308 W. Washington St., both Chicago, Ill.; R. P. Whitty Co., Inc., Denrike Bldg.; United Construction Co., Munsey Bldg.; Graham Construction Co., 1052 Washington Bldg., all Washington; William Steele & Sons Co., 124 N. 15th St., Philadelphia, Pa.; MacDonald Spencer Engineering Co., Graybar Bldg.; Summers Engineers & Construction Co., Graybar Bldg., both New York; Charles H. Shook, Inc., Third Natl. Bank Bldg., Dayton, O.; E. H. Latham Co., 447 Neilston St., Columbus, O. 7-30

D. C., Washington—The Hecht Co., F and Seventh Sts., N. W., purchased Downtown Parking Garage property, 613 G St., N. W.; remodel for warehouse and delivery building; Abbott Merkt & Co., Engrs., 22 E. 40th St., New York.

Mo., St. Louis—Armour & Co., E. J. Harrington, Mgr., 2030 Clark Ave., plans alterations to 2 story refrigerator warehouse.

Tenn., Nashville—John Deere Plow Co., Moline, Illinois, purchased site, Eighth Ave., South, and Fogg St.; erect 4-story warehouse and office building in 1932, to serve southern Kentucky, east and middle Tennessee and northern Alabama; \$100,000, 130x120 ft.

Fla., Miami—Chas. C. Sharman, 139 N. E. First St., let contract to James Betteridge, 1976 N. W. 24th Court, for residence; rein. conc., conc. block and stucco, tile and oak floors, 2 stories, tile roof; Geo. Bruce, Archt., 519 Security Bldg. 8-13

La., Monroe—Judge Ben C. Dawkins, Post Office Bldg., let contract at \$10,805 to Salley & Russell, Ouachita Natl. Bank Bldg., for Colonial residence; brick veneer, 2 stories, 9 rooms; Love & Barr, Archts., Bernhardt Bldg.

La., New Orleans—Frank Nuccio, Contr., 4001 Franklin Ave., erect duplex, St. Charles Ave. and Sixth St.

Md., Baltimore—Pos. Ritter, Jr., 5511 Hilltop Ave., has contract to erect brick dwelling; 2½ stories, 28x32 ft.

Md., Baltimore—Clifton K. Wells, Bldr., 3538 Old York Rd., probably take sub-bids in fall for dwelling, Pinehurst; Palmer & Lambdin, Archts., 513 N. Charles St.

Md., Baltimore—Mabel Taylor, 3125 Watson St., erect 4 brick dwellings, 5326-30 Tholoan and 5400 block Pernod St.; 1 story, 26x45 ft., comp. shingle roofs, hot air heat; total \$16,000; Lawrence Steffen, Archt., 5045 Grace St.; Harry Hardt, Contr., 3125 Watson.

Md., Baltimore—Clifton K. Wells, 3538 Old York Rd., plans dwelling, Pinehurst.

Md., Baltimore—Pinewood Park Co., 4341 Harford Rd., erect 4 frame dwellings, 2608-14 Roselawn Ave.; 1½ stories, 28x44 ft.; owner builds.

Md., Baltimore—E. W. Riddle, 2914 White Ave., erect 6 frame dwellings, Sisson Ave.; 2 stories, 25x27 ft.; sub-bids in fall.

Md., Baltimore—Walter P. Myers, 3049 Fleetwood Ave., completed plans for brick residence, 542 Remmel Ave.; 1½ stories, 24x43 ft.; owner builds.

Md., Baltimore—Frank Novak Realty Co., 33rd St., plans number dwelling groups, Parkside Drive; brick, 2 stories; Cyril H. Hebrank, Archt., 3 E. Lexington St.; owner builds.

Md., Baltimore—Henry Momberg, 34 W. Chase St., plans dwelling, Anneslie; frame, 2½ stories; owner builds; soon take sub-bids.

Md., Baltimore—Michael Derwant, 5212 Harford Ave., erect 2-story conc. block residence, 2204 Corbin Rd.; 28.6x48.6 ft.; Wm. C. Jung, Contr., 3102 Gibbons Ave.

Md., Chestertown—Howard Strong receives bids Aug. 18 at office W. H. Emory, Jr., Archt., Balto. Trust Bldg., Baltimore, for 2-story frame residence; \$25,000, irregular shape, stone foundation, hot water heat, slate roof, hardwood floors; following contractors estimating: Tase-Norris Co., 906 Cathedral St.; G. Walter Tovell, Eutaw and Monument Sts.; Sidney McCall, 3403 Mormon Ave.; Ralph McMurray, 39th St. and Old York Rd., all Baltimore; Farmer & Comegys, Easton; J. B. Pennington, Chestertown; Hastings & Parsons, Salisbury; Edward Van Sant, Millington.

Md., Ruxton, Baltimore—Clifton K. Wells, 3538 Old York Rd., has contract to erect 2-story dwelling, Berwick Rd., Ruxton, 25x36 ft.; E. H. Glidden, Archt., 18 E. Lexington St., both Baltimore.

Md., Sweetair, Baldwin — Presbyterian Church let contract to Wm. H. Sands, Townson, for 2-story stone and frame manse. 8-13

Miss., Greenville—Roy T. Henry erecting \$10,000 residence, Wilzin Park; polychrome brick veneer, 2 stories, Red Top pulp board insulation; Harfy W. Lathrop, Archt.; C. H. Barber, Contr.

Miss., Leland—Steve Schilling started work on Colonial residence; brick veneer, 2 stories; Harry McKee, Contr., Greenville.

Okla., Oklahoma City—A. C. DeBolt, 508½ W. 18th St., let contract for \$15,000 residence, 808 N. W. 41st St., to L. E. Smith; brick veneer, 2 stories, 35x38 ft.; C. D. Walters, Archt., Alexander Bldg., Tulsa.

Tex., Fort Worth—Ernest Friedman, 111 W. Ninth St., let contract to B. B. Adams, 913 First Natl. Bk. Bldg., for \$13,000 residence, Medford Court East, Park Hill Addition; brick and stucco, 2 stories, 50x39 ft., oak floors, pine trim, Sheetrock and Textone; Jos. R. Pelich, Archt., 1103 Aviation Bldg. 7-16

Tex., Fort Worth—J. G. Stein erect \$10,000 residence, Tulsa Way and Watonga St.; brick veneer, 2 stories, 45x39 ft., wood shingle roof, oak floors, tile baths, pine finish; D. D. Jones, Contr., 1601 Sixth Ave.; foundation in.

BUILDING CONTRACTS AWARDED

Association and Fraternal

Md., Baltimore—Independent Order of Odd Fellows let contract to W. E. Bickerton Construction Co., 515 Cathedral St., to alter lodge bldg., Cathedral and Saratoga Sts.; \$50,000; plans by Office of Joseph Evans Sperry, Calvert Bldg.; Herman F. Doeelman, Struct. Engr., Baltimore Trust Bldg. 5-7

Md., Baltimore—Baltimore Forest No. 45, Tall Cedars of Lebanon, Archie C. New, Chmn., Bldg. Comm., let contract to Morrow Bros., Inc., Fidelity Bldg., for \$200,000 auditorium, rear of 1209-15 N. Charles St.; fireproof; 1 story, basement, mezzanine and balcony. 3-19

Bank and Office

Tenn., Knoxville—Empire Trust Co. let contract to B. T. Thomas, Empire Bldg., to remodel Empire Bldg.; W. A. Rutherford, Jr., Archt., Kingston Park. 7-30

Tex., Houston—Jos. F. Meyer, 802 Franklin St., let contract to Northern Construction Co., Esperson Bldg., to remodel old Cotton Exch. Bldg., 202 Travis St.; \$20,000.

Tex., San Antonio—Central Power & Light Co., 110 N. Chaparral St., let contract to Wood-Sherman Construction Co., Inc., Furman Bldg., for 2-story office bldg. and for alterations to home service bldg.; former fireproof, 40x90 ft., terrazzo floors, 8-ft. American walnut wainscoting on first floor, floodlighting; 4 display windows; foundation to permit additional stories; John M. Marriott, Archt., Frost Natl. Bank Bldg.; Matthews & Kenan, Engrs., 16th floor Smith-Young Tower, both San Antonio. 7-30

Churches

D. C., Washington—Fred Drew Co., Inc., 2539 Pennsylvania Ave., N. W., has conc. contract for \$200,000 Church of Jesus Christ of Latter Day Saints; plumbing, Joe High, Inc.; heating, D. D. Condon Co., all Washington; Young & Hansen, Archts., Salt Lake City, Utah; Don C. Young, Resident Archt.-Constr. Supvr., New Amsterdam Hotel; W. P. Lipscomb Co., Contr., 1406 G St., N. W., both Washington. 5-21

Ga., Atlanta—Woodward Ave. Baptist Church let contract to F. H. Turnipseed, 345 Tenth St., N. W., for brick church and Sunday school; 2 stories and basement, conc. foundation, wood floors, comp. roof, steam heat; DeFord Smith, Archt., 289½ Peachtree St., N. E. 7-23

Md., Baltimore—Martin Luther Congregation, Rev. H. C. Shultz, Pastor, remodel bldg., Orleans St. and Patterson Park Ave.; \$10,000; C. E. Parsley, Contr., 1536 N. Gay St.

Md., Baltimore—St. Francis Xavier R. C. Church, Rev. Thos. J. Duffy, Pastor, 401 St. Paul Place, let contract to W. H. Armacost Co., care of Leo Sorrell, 3343 Woodland Ave., for interior and exterior alterations to church, Caroline and Eager Sts.; L. E. D. Gaudreau, Archt., 3458 Park Heights Ave. 4-16

Md., Centerville—Roman Catholic Church, Rev. Eugene J. Kraemer, Pastor, Mother of Sorrows Rectory, reported, let contract to John P. Hallahan, Inc., 3116 Market St.,

Philadelphia, Pa., for stone church and frame rectory; \$250,000; Shreve, Lamb & Harmon, Archts., 11 E. 44th St., New York. 7-23

Mo., St. Louis—St. Pauls Evangelical Church erect \$115,000 bldg., Giles Ave. and Potomac St.; brick, Bedford limestone trim, slate roof, bell tower, aluminum spire, timber trusses and rafters, nave seat 600; Hoerner, Baum & Froese, Archts., 3605 Laclede St.; C. H. Schroeder Building & Contracting Co., Contr., 4246 Natural Bridge Ave.

W. Va., Martinsburg—J. Aubrey Potter, Staunton, Va., has contract to erect bldg. for Rev. F. P. Lackey, 219 S. Queen St.; brick; T. J. Collins & Son, Archts., Staunton.

City and County

Ark., Russellville—Carthage Marble Corp., Carthage, Mo., has \$15,000 marble contract for \$150,000 Pope County court house; H. Ray Burks, Archt., Wallace Bldg.; Gordon Walker Co., Contr., Pyramid Life Bldg., both Little Rock, Ark. 6-11

Okla., Konawa—City started work on city hall; R. F. Ferguson, Archt.; V. A. Kennedy, Contr.

Dwellings

D. C., Washington—Jefferson Patterson, 10 Thompson Circle, completed excavation for \$12,000 residence, 10 Thompson Circle; brick, 2 stories, 20x18 ft., tile and hardwood floors, conc. foundation, canvas back flat roof, cast stone, limestone, metal ceilings, steel sash and trim; Geo. N. Ray, Archt., 1223 Connecticut Ave.; F. M. McConihe & Co., Inc., Contrs., 716 Jackson Place. 8-13

D. C., Washington—Stambaugh Construction Co. started work on 2-story brick dwelling, Wynnewood Park, for Bernard T. Hammett, Silver Spring, Md.

D. C., Washington—C. H. Small & Co., 925 15th St., N. W., have permit for 3 brick dwellings, 4437-41 14th St., S. E.; 2 stories; total \$21,000.

D. C., Washington—Cafritz Construction Co., 404 K St., N. W., has permit for 16 brick dwellings, 5001-31 Fourth St., N. W.; 2 stories; total \$112,000.

D. C., Washington—Ring Construction Co. erect 10 brick dwellings, Kansas Ave., Fourth and Ingraham Sts.; stone trim, 2 stories, tile baths, oak floors, slate, tin or slag roofs, hot water heat; H. H. Warwick, Archt., both 1404 K St., N. W.

D. C., Washington—F. Davis Little, 3385 Tennyson St., N. W., has permit for \$10,000 dwelling, 3375 Stuyvesant Place; brick, 2 stories, slate roof, hot water heat; owner builds.

D. C., Washington—A. G. Davis, 40 Central Ave., Brentwood, has permit for \$10,000 dwelling, 3905 24th St., N. E.; brick, 2 stories, asphalt shingle roof, hot water heat; Geo. T. Santmyers, Archt., 925 15th St., N. W.; Tolson, Kemp & Nix, Contrs., 2314 Rhode Island Ave., N. E.

Fla., Miami Beach—Robt. E. Scholze erect residence; Paist & Stewart, Archts., Ingraham Bldg.; S. R. Carroll, reported, Contr., 1350 Collins Ave.

Tex., San Antonio—O. L. Thomasson, 303 W. Park St., started work on 6-room frame residence, 2054 W. Gramercy Place; 2 baths; V. F. Buchek & Co., Contrs., 1525 W. Mulberry St.

Government and State

Ala., Albertville—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., let contract for \$50,000 post office to The Adams Constr. Co., Woodward Bldg., Washington; rein. conc., fireproof, wood and steel roof, built-up and slate roofing, 2 stories, 65x85 ft., conc. foundation, slate and comp. roof, conc., hardwood, terrazzo and tile floors, limestone, marble, vaults, brick, orna. struct. steel, screens, millwork, plastering. 8-6

Ark., Brinkley—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., let contract at \$48,845 to James I. Barnes, Logansport, Ind., for post office. 8-6

D. C., Washington—Following sub-contracts let on \$800,000 conservatory bldg., U. S. Botanical Garden, on which conc. piles are being driven: Conc. piles, Pierce Steel Pipe Corp., 44 South St., New York; brick work, D. C. Butcher, Rust Bldg.; painting, E. W. Minte Co., 1213 12th St., N. W., both Washington; rein. steel, Truscon Steel Co., Youngstown, O.; limestone, Shawnee Stone Co., Bloomington, Ind.; granite, Greensboro Granite Co., Greensboro, N. C.; struct. steel and aluminum work, Wheeling Structural Steel Co., Wheeling, W. Va.; orna. iron and aluminum, Lord & Burnham, Irvington, N. Y.; plumbing and heating, Loftis-Seeley Plumbing & Heating Co., 15th and B Sts., N. W., Washington; elect. work, Whitmore Electric Co., Richmond; Bennett, Parsons & Frost, Archts., 80 E. Jackson Blvd., Chicago, Ill.; George A. Fuller Co., Munsey Bldg., Washington. 6-18

D. C., Washington—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., let contract at \$766,000 to Wills, Taylor & Mafera Corp., 303 W. 42nd St., New York, for Public Health Service Bldg.; elevator system, American Elevator & Machine Co., 500 E. Main St., Louisville, Ky., at \$20,448; excavation and foundation work under way by Raymond Concrete Pile Co., 140 Cedar St., New York, at about \$60,000; marble street frontages, 3 stories, 260 ft. on B St., 145 ft. on 19th and 50 ft. on 20th; central wing 48x76 ft.; steel sash, electro bronze, green glazed tile, pitched roof, deck roof, roofing tile, Indiana limestone court and rear walls, steel skeleton with terra cotta or other flooring, marble finished floors in main entrance and stairhall, others comp. with marble base, oak trim, sash and doors, white coated plaster walls, tile floors and 6-ft. wainscot in toilets, conduit elect. system, hot water and vacuum cleaning systems; 1,468,680 cu. ft.; J. H. DeSibour, Archt., 1200 15th St., N. W., Washington. 8-13

Fla., Key West—Mizner Industries, Palm Beach, Fla., has exterior stone contract for \$525,000 post office, court house, custom house, etc.; cement, Florida Portland Cement Co., 305 Morgan St., Tampa, Fla.; Algernon Blair, Archt., First Natl. Bank Bldg., Montgomery, Ala. 8-6

La., Barksdale Field, Shreveport—O'Pry Plumbing & Heating Corp., 350½ Second St., Macon, Ga., has plumbing and heating contract on 42 company officers' quarters, Barksdale Field; wall plugs, Builders Supply Co., Foot of Third St., Shreveport; brick and tile, Hope Brick Works, Hope, Ark., and Waterman Brick & Tile Co., Waskom, Tex.; millwork, Victoria Lumber Co., Ltd., 119 Spring St., Shreveport; tile, Industrial Tile Co., Inc., 422 E. Ninth St., Tulsa, Okla.; Ashton-Glassell, Inc., Contr., 260 Cadillac St., Shreveport. 7-23

Md., Beltsville—Bureau of Animal Industry, Dept. of Agriculture, Washington, D. C., let contract at \$13,517 to Chas. S. Bennett, Inc., 4700 Springfield Ave., Philadelphia, Pa., for barn, Experimental Farm. 7-23

Md., Cascade—Maryland National Guard, Capt. Robt. F. Barrick, let contract to Minter Homes Corp., 340 Third Ave., Huntington, W. Va., for baths and latrine bldgs., Camp Ritchie; frame, 1 story. 7-9

Md., Chestertown—Maryland National Guard, Adjt.-Gen. Milton A. Reckord, Howard St. Armory, Baltimore, let contract about \$47,000 to Carl Schmidt, Hearst Tower Bldg., Baltimore, for armory; brick, stone trim, 1 story; Wm. Gordon Beecher, Archt., 12 E. Pleasant St., Baltimore. 7-23

Mo., Centralia—Treasury Dept., Jas. A. Wetmore, Act. Supvg. Archt., Washington, D. C., let contract at \$48,786 to Sandford Bros., 301 Washington Ave., Montgomery, Ala., for post office. 8-13

Hospitals, Sanitariums, Etc.

Miss., Jackson—Jacobson Plastering Corp., 1606 Candler Bldg., Atlanta, has lathing and plastering contract for work at \$5,000, 000 Mississippi Insane Hospital; N. W. Overstreet, Archt., Standard Life Bldg., Jackson; Vinson B. Smith, Advisory Archt., Gulfport, Miss. 8-13

Okla., Supply—J. L. Swafford, Oklahoma City, has plumbing and heating contract for \$125,000 ward bldg., Western State Hospital for Insane; Layton, Hicks & Forsyth, Archts., Braniff Bldg., Oklahoma City; Dunning Construction Co., Contr., 420½ N. Hudson St., Oklahoma City. 8-6

S. C., State Park—State Bd. of Health, Columbia, let contract at \$15,276 to J. J. Jamison, Columbia, for nurses' home, physician's home and dairyman's cottage, South Carolina Sanatorium; frame, 45x83 ft., 30x45 ft. and 30x51 ft., 1 and 2 stories, hardwood floors, conc. foundations, comp. asphalt shingle roofs, elect. refrigerators; Arthur W. Hamby, Archt., 1325 Main St., Columbia. 8-6

Hotels and Apartments

Ga., Macon—Jacobson Plastering Corp., 1606 Candler Bldg., Atlanta, has lathing and plastering contract for Hotel Dempsey; Angle-Blackford Co., Contr., American Bank Bldg., Greensboro, N. C.; W. L. Stoddard, Archt., 50 E. 41st St., New York. 6-25

Md., Baltimore—Mervis Construction Co., 1650 Fayette St., has contract for apartment alterations, 2357 Eutaw Place, for M. Caplan. 8-6

Mo., St. Louis—Emil E. Henner, 1527 Arlington St., erect \$10,500 tenement, 3922-22A, 24, 24A Evans St.; 2 stories, 37x55 ft., slate roof, hot air heat; E. E. Henner, Jr., Archt.; P. Brader, Bldr., 6344 Emma St. 8-6

Mo., University City, St. Louis—Alco Investment Co., 808 Chestnut St., erect \$12,000 tenement, 7156 Tulane; 2 stories, 51x45 ft., brick, conc. foundation, slate roof; hot water heat; Nolte & Nauman, Archt., 3832 W. Pine St., St. Louis; Swan Supply Co., Bldr., 4501 Swan St. 8-6

Miscellaneous

Fla., Hialeah—Miami Jockey Club, Frank L. Bruen, Mgr. Dir., 5632 Sheridan Ave., Miami Beach, let contract at \$14,918 to Fred Howland, 1600 N. W. 14th St., for club house; to John B. Orr Const. Co., 147 N. E. Sixth St., Miami, at \$85,000 for administration building; Smith and Riddle, Inc., Supvg. Engrs., 210 Royal Palm Way; L. W. Geisler, Archt., 19 Via Parigi, both Palm Beach. 8-6

Fla., Lake Wales—Women's Club let contract at \$16,450 to Lester F. Martin for club house. 8-6

Tex., Raymondville—Raymondville Women's Club let contract to Blythe and Duerksen, Harlingen, for club. 8-6

Railways Stations, Sheds, Etc.

Tex., Cleburne—Gulf, Colorado & Santa Fe R. R., F. Merritt, Ch. Engr., Galveston, let contract to A. J. Rife Construction Co., 1913 N. Harwood St., Dallas, for 24x192 ft. warehouse addition to company's shops. 6-18

Schools

Ala., Auburn—Pi Kappa Alpha Fraternity, J. E. H. Jenkins, let contract at \$19,100 to E. C. Coston, Avenue G, South, Birmingham, for one-story, 40x90 ft., brick veneer and frame fraternity house; hardwood and tile floors, cast stone, built-up and slate roof; Warren, Knight & Davis, Archts., Protective Life Bldg., Birmingham. 8-13

D. C., Washington—Commissioners, District of Columbia, let contract at \$167,000 to Lee Paschall, American Natl. Bk. Bldg., Richmond, Va., for 10-classroom and auditorium addition to MacFarland Junior High School; A. L. Harris, Municipal Archt. 8-13

Fla., Tallahassee—State Board of Control, P. K. Yonge, Chmn., Jacksonville, let contract to Grahn Construction Co., Red Rock Bldg., Atlanta, for building at Florida Agricultural and Mechanical College for Negroes; \$48,833; one and two stories and basement, 78x137 ft., rein. conc., struc. steel, brick walls, cast stone, slate roof; Rudolph Weaver, Board architect, Peabody Hall, Gainesville, Fla. 7-23

La., Baton Rouge—Jacobson Plastering Co., 1606 Candler Bldg., Atlanta, Ga., has lathing and plastering contract for women's dormitory, Louisiana State University; J. V. and R. T. Burkes, Inc., Contrs., American Bank Bldg., New Orleans, and Baton Rouge. 6-4

La., Baton Rouge—Laclede Steel Co., Arcade Bldg., St. Louis, has contract for 250 tons conc. bars for Fine Arts Building, 8-6

Louisiana State University and Agricultural and Mechanical College; Ingalls Iron Works Co., 720 Fourth Ave., S., Birmingham, Ala., for 200 tons struc. shapes; Caldwell Brothers, Contrs., 816 Howard Ave.; Weiss, Dreyfous & Seiferth, Archts., 600 Maison Blanche Bldg., both New Orleans. 8-13

La., Delcambre—Iberia Parish School Bd., L. G. Porter, Sec., New Iberia, let contract at \$27,288 to W. J. Quick, 424 Bilbo St., Lake Charles, for 2-story, brick high school; 13 classrooms, library and principal's office; asbestos slate roof, wood floors, steam heat; Wm. T. Nolan, Archt., Canal Bank Bldg., New Orleans. 7-30

La., New Orleans—St. Joseph's Academy, Ursuline and Galvez Sts., let contract at \$39,241 to H. Pratt Farnsworth, Canal Bank Bldg., for 2-story building, 70x32 ft., with two 25x30-ft. wings; fire-resistant, brick walls; conc. foundation, slate roof, terrazzo and wood floors, steam heat, concealed radiators; 12 bedrooms, refectory, kitchen and laundry; Diboll & Owen, Archts., Canal Bank Bldg. 7-16

La., New Orleans—Following additional sub-contractors on St. Philip School, on which H. Pratt Farnsworth, Contr., Canal Bank Bldg., has foundation and brick work complete: Lumber, Horman Salmen Co., Inc., 3800 Tulane Ave.; testing, Pittsburgh Testing Laboratory, 816 Howard Ave.; screen hardware, Moskou Cabinet Works, 1027 Royal St.; millwork, Enochs Lumber & Manufacturing Co., Jackson, Miss.; E. A. Christy, Supvg. Archt. for School Bd. 7-23

La., Shreveport—Following sub-contracts awarded on 2-story, 70x120 ft., 8-room addition to Fair Park High School for which K. C. Wilson, Box 549, has general contract at \$65,216: Acousti-Celotex, Acoustics & Specialties, Inc., New Orleans; buff Indiana limestone, B. & B. Cut Stone Co., Inc.; roofing and sheet metal work, H. H. Bain Sheet Metal Works, 808 Reynolds St.; electrical, Cahn Electric Co., Inc., 708 Milam St.; plumbing and heating, Fitzgerald Plumbing & Heating Co., Inc., 941 Louisiana Ave.; painting, P. L. Kaiser Painting & Decorating Co., 2734 Lillian St.; millwork, glass and glazing, Robinson-Slagle Lumber Co., Inc., 1401 Abbie St.; tile, Tri-State Tile Co.; lathing and plastering, Wilson-Bagney Plastering Co., Inc.; framing lumber, Victoria Lumber Co., Ltd., 119 Spring St.; face brick and hollow tile, Acme Brick Co., City Bank Bldg.; sand, Acme Sand Corp., Foot of Lake St.; gravel, lime and misc. supplies, Standard Building Supply Co., Inc., 331 Franklin St., all Shreveport; cement, Trinity Portland Cement Co., Santa Fe Bldg., Dallas, Tex.; furnish and install interior marble, Carthage Marble Corp., Carthage, Mo.; rein. struct. and orna. steel, North Texas Iron & Steel Co., 1401 N. Adams St., Fort Worth, Tex. 6-118

Miss., Myrick, R. D. from Laurel—Myrick Consolidated School Dist. Trustees, let contract at \$6914 (conditioned on sale of bonds) to Lafe Walley, Richton, for one-story, 53x80 ft., brick and frame school; wood floors, comp. shingle roof; L. W. Duffee, Archt., O'Ferrell Bldg., Laurel. 8-6

N. C., Lenoir—Caldwell County Bd. of Education let contract at \$16,490 to Herman & Sipe, Conover, for school 4 mi. west of Lenoir; 8 classrooms and auditorium; 1 story, conc. footings, comp. shingle roof; L. R. Rink, Engr., Hickory. 8-6

Okla., Enid—McMillen Construction Co., Broadway Tower Bldg., Enid, starting work on ward buildings at Oklahoma Institute for Feeble Minded; 2 stories, 41x135 ft., conc., steel and brick, limestone, metal doors, hollow tile, conc. foundation, rubber tile and terrazzo floors, Spanish tile roof; \$110,000; Layton, Hicks & Forsyth, Archts., Braniff Bldg.; Brown & Myers, Engrs., Petroleum Bldg., both Oklahoma City. 8-13

Okla., Oklahoma City—Sam S. Laughlin, 209 N. E. 23rd St., has contract at \$21,975 for high school, District No. 60, southwest Oklahoma City; 1 story, 136x82 ft., brick and tile, conc. foundation, pine and terrazzo floors, asphalt shingle roof; Butler Co., Archt., Insurance Bldg. 8-6

Okla., Pauls Valley—Acme Construction Co., 6th and Kenosha Sts., Tulsa, has general and wiring contracts for \$45,000 building, detention and observation home, State Training School; \$60,000; 3 stories and basement, brick, stone and rein. conc.; heating and plumbing to Holden Co., Duncan; A. C. Davis & Son, Archts., Shawnee. 8-6

Okla., Taft—State Bd. of Affairs, W. C. Hughes, Chmn., Oklahoma City, let contract for buildings, State Deaf, Blind and Orphans Institute for Negroes to Underhill Construc-

tion Co., Braniff Bldg., Oklahoma City, at \$99,160 for Boys' dormitory, Girls' dormitory, dining hall, commissary building, industrial building; O'Connor Co., 411 N. Third St., Muskogee, contract at \$17,313 for heating and plumbing; Layton, Hicks & Forsyth, Archts., Braniff Bldg., Oklahoma City.

Tex., Rolla, Edinburg—Rio Grande Construction Co. has contract for school; plumbing to J. H. Ferguson, McAllen.

Tex., Santo—Santo Ind. School Dist. Trustees, Mrs. D. W. Barnes, Sec., let contract at \$13,271 to Abilene Construction Co., Abilene, for one-story, 72.8x152.2-ft., brick and tile high school; built-up roof, cast stone, comp. floors, limestone, metal ceilings, hollow tile; C. M. Love, Archt., 314 S. Henderson St., Fort Worth.

Va., Norfolk—Calrow, Browne & Fitz-Gibbon, Royster Bldg., advise Junior high school project will not go ahead until around first of year. 5-7

W. Va., Huntington—Board of Education considering acquiring Liggett & Myers Tobacco Co. plant, 27th St. and Emmons Ave., for high school.

Stores

D. C., Washington—Chas. H. Tompkins Co., 1608 K St., N. W., has contract for 30x95-ft. building for Sanitary Beef Co.; 40x92-ft. building for Oriental Paper and Bag Co., 111 Sixth St., N. W.; and five buildings, 20x70 ft., with 49-ft. canopy for Joseph Phillips & Co., 416 Morse St., N. E.; all at Union Market Terminal, Fifth St. and Florida Ave.; fireproof.

Ga., Atlanta—Peck Estate let contract to Norwood Griffin, Bona Allen Bldg., for alterations to building, 2 Houston St., N. E.; private plans.

Ga., Atlanta—John K. Hinds let contract to Pittman Construction Co., Rhodes Bldg., for store, 390 Courtland St., N. E.; tile, brick and conc.; comp. roof.

Ga., Atlanta—W. L. and P. H. Randall, 95 Marietta St., N. W., let contract to Shelverton Construction Co., Red Rock Bldg., for additions and alterations to store, 35 Marietta St., N. W.; 4 stories and basement, 105x25 ft.; install new front struc. steel beams, metal ceilings, tile, linoleum and hardwood floors, steel sash, electric elevator; plumbing, heating and wiring; Daniell & Bentell, Archts., 701 Georgia Savings Bank Bldg. 7-23

Ga., Augusta—Central Investment Co. let contract to J. B. Mobley, Broad St., for store; brick walls, conc. foundation, comp. roof; Scroggs & Ewing, Archts., S. F. C. Bldg.

Ga., Buckhead—L. A. Smith, 3760 Peachtree Road, N. W., Atlanta, let contract at \$20,675 to Collins, Holdbrook & Collins, Atlanta Trust Bldg., Atlanta, for 1-story, 1,233-115 ft., brick struc. steel store, Peachtree Road and Sims Ave.; limestone and marble trim, built-up roof, cement and terrazzo floors; George H. Bond, Archt., Candler Bldg., Atlanta. 8-6

La., New Orleans—Lionel F. Favret, Louisiana Bldg., has contract for alterations and repairs, store, 811 Canal St.; Moise H. Goldstein, Archt., American Bank Bldg.

Md., Baltimore—Scheilmann & Co., Louis Cohn, 224 N. Howard St., make extensive store improvements; double present space; change entire front, black and white marble; unit display windows with 25-ft. depth; concealed lighting; install modern equipment.

Md., Salisbury—R. E. Powell & Co. remodeling store front.

Miss., Pascagoula—E. Kihyet started work on store on Ker St.; one-story 36.6x67.6 ft., brick and stucco, comp. roof; Allie Ladner, Contr.

Okla., Tulsa—S. E. Vance, 412 S. Lansing St., has building permit for \$12,000 building, Seventh St. and Utica Ave.; 1 story, brick.

90x100 ft.; to be occupied by R. V. Aycock Co., 119 W. First St., asbestos dealers.

Tenn., Knoxville—Woods & Taylor, Wall St., remodeling and enlarging first floor of building, Market Sq.

Tex., Baytown—Mike Katribe erect \$15,000 store, Market St.; 1 story, 25x90 ft., tile and stucco; contract let.

Tex., Refugio—P. F. Allan, 708 Olmos Dr., has contract at \$12,989 for store and office; 2 stories, brick, struc. clay tile; Malcolm G. Simons, Archt., Builders Exchange Bldg., both San Antonio.

Tex., Shamrock—O. T. Nicholson erecting brick building to replace store destroyed by fire; 25x70 ft.

Va., Roanoke—Richardson-Wayland Electrical Corp., 106 Church Ave., S. W., erect \$30,000 building; 2 stories, brick and stone; J. F. Barbour and Sons, Contrs., Colonial-American Natl. Bank Bldg.; Louis P. Smithey, Archt., 112 Kirk Ave., W.

Warehouses

Ky., Carrollton—Independent Tobacco Sales House erect addition; 25,000 sq. ft.; Kemper, Gullion, Neville & Stivers, Worthville, Contrs.

Tenn., Greeneville—R. J. Reynolds Tobacco Co., Winston-Salem, N. C., let contract to J. H. Moore & Son, Abingdon, Va., for green tobacco prizing warehouse; 352 ft. long by 42 to 100 ft. wide; 1 story; frame covered with corrugated galvanized iron; brick piers, tin roof; wood, gum top floors; \$20,000; G. M. Poley, Archt., Winston-Salem. 7-30

Tex., San Antonio—Joe Dean, 909 S. Flores St., let contract to Walsh, Burney & Key 928 N. Flores St., for 2-story, L-shape, 61x156 ft. and 78x150 ft., brick and concrete block warehouse, rear 909 S. Flores St.; Merchants Transfer & Storage Co., Lessee, 1032 N. Mesquite St.; Morris, Noonan & Wilson, Archts.-Engrs., Builders Exchange Bldg.

THE CLASSIFICATIONS IN THIS SECTION ARE:

WANT SECTION

Machinery and Supplies

Under this heading are reported requests for data, prices and literature and information on machinery, supplies and miscellaneous materials of a wide variety.

Building Materials and Equipment

This division comprises all classes and kinds of materials and equipment used in building and construction projects of every kind.

Bids Asked

Includes bids asked by U. S. Government, States, districts, municipalities, firms and individuals for machinery, materials, supplies and construction work.

Items in this department are published without charge and these columns are open for the publication of wants of all kinds relating to construction work, machinery, materials and supplies.

Machinery and Supplies

Air-Cooling Systems.—W. B. McEwen, McEwen Lumber Co., High Point, N. C.—Wants prices and data from firms in position to install air-cooling systems in churches and similar buildings.

Battery Cables.—Koch Auto Electric Co., Inc., 439 E. Broadway, Louisville, Ky.—Wants data and prices on modern equipment for manufacturing battery cables.

Balers.—Geo. E. Chamberlin, 98 Pine St., New York—Wants prices and data from manufacturers of paper and scrap metal balers.

Band Resaw.—W. M. Smith & Co., P. O. Box 1709, Birmingham, Ala.—Wants prices and data on 8-ft. used horizontal band resaw.

Canning Plant Equipment.—Miraflores Industries, Inc., Avalon Terrace, Hammond, La.—Wants prices and data from manufacturers on canning equipment.

Clay Calcining Machinery.—Geo. P. Jones, 1101 Provident Bldg., Chattanooga, Tenn.—Wants prices and data on machinery for calcining clay, etc.

Dragline Equipment.—L. B. Smith, Inc., Camp Hill, Pa.—Wants prices and data on used stationary dragline equipment, 1 to 3 yd. size, suitable for digging sand and gravel; Sauerman or equivalent.

Heating Plant (Steam).—St. John Mfg. Co., P. O. Box 1579, Greenville, S. C., manufacturers and converters of cotton goods.—Wants prices and data on steam heating plant, for heat only, low pressure boiler, oil burning, for installation in new building.

Motor (Slip Ring).—Hackley Morrison (Mchy. Dealer), Mutual Bldg., Richmond, Va.—Wants prices and data on 250-h.p. slip ring motor, 3/60/440; preferably 600 r. p. m.; wire quotations requested.

Pumping Engine.—Comsn. of Public Works, Harry Sudlow, Supt., Aiken, S. C.—Wants data and prices on 750-800 g.p.m. pumping engine, crank and fly wheel, cross compound, condensing; to be operated against 410 ft. total head; steam pressure 135-150 lbs., condenser to be supplied, condensing water 65 degrees.

Bowling Green Refining Co., Box 605, Bowling Green, Ky., wants data and prices on following:

- (1) Agitators
- (2) Boiler
- (3) Pumps
- (4) Tanks.

F. L. Seely, Asheville, N. C.—Wants prices and data on following:

- (1) Engine—50 h. p.
- (2) Feed Water Heater
- (3) Oil Separator.

Henry Walke Co. (Mchy. Dealer), Norfolk, Va.—Wants prices and data on following, used, first-class condition:

- (1) Boiler—125 or 150 h. p., horizontal return, tubular
- (2) Engine Generator Set—100 h.p., direct connected to 125-h.p. engine.

W. M. Smith & Co. (Mchy. Dealer), Box 1709, Birmingham, Ala.—Wants prices and data on following:

- (1) Band Resaw—8 ft., horizontal
- (2) Keysat Machine
- (3) Resaw Tilting Table—56 to 66 in., vertical
- (4) Rock Crusher—used, portable, small or medium size, gasoline driven
- (5) Slotter—small.

Equitable Equipment Co. (Mchy. Dealer), Elysian Fields Ave. and Florida Walk, New Orleans, La.—Wants prices and data on following:

- (1) Derricks (Stiff-leg)—several, 10 to 20 ton capacity, with or without engines
- (2) Hoists—one or more 3-drums, with boilers, 8½x10 in. or larger.

Steam Engine.—Paul Williams Co., Macon, Ga.—Wants prices and data on 250-h. p. steam engine.

Windmill.—Harry L. Upperman, Baxter Seminary, Baxter, Tenn.—Wants prices and data from manufacturers of windmills; for school farm.

Gas Plant Equipment.—Lynchburg Gas Co., 601 Main St., Lynchburg, Va., wants data and prices on following:

- (1) Feed Water Heater—one 300 h. p., open type
- (2) Feed Water Pumps—2 6-in. x 4-in. x 6-in. duplex
- (3) Steam Turbine—50-60 h. p., 150 lb. working pressure, 1750 R.P.M. steam turbine for blowers.

Hackley Morrison (Mchy. Dealer), Mutual Bldg., Richmond, Va.—Wants prices and data on following:

- (1) Boiler—250-h. p., return tubular, 84 in. x 20 ft., A.S.M.E., 150 lb. pressure with suspension equipment
- (2) Generator—50 kw., 3 phase, 30 cycle (can use 25 cycle) 220 volt, a. c., driven by 120-volt, d. c. motor, or by steam engine or turbine that will operate on 125 lb. steam pressure and 25 lb. back pressure
- (3) Turbo-Generator—250 kw., 3 phase, 60 cycle, 2300 volts, with exciter non-condensing, 125 lb. steam pressure, saturated steam; wire quotations requested.

A. R. Morrill, 402 First Natl. Bank Bldg., Tampa, Fla.—Wants prices and data on following:

- (1) Elevator Buckets—20x8 in., V type, delivered to Ringgold, Ga., delivery at Hale's Quarry
- (2) Engine—full Diesel, 125 or 150 h. p.

Summit Lumber Co., Citizens Bank Bldg., Uniontown, Pa., wants following, second hand, good condition:

- (1) Band Resaw
- (2) Double Surfacers and Matcher—24 in.

Hackley Morrison (Mchy. Dealer), Mutual Bldg., Richmond, Va.—Wants prices and data on following:

- (1) **Boilers**—100 h. p., Scotch Marine type, 125 lb. working pressure, preferably with corrugated furnace; 75 h. p. locomotive high pressure boiler, good for 150 lb. working pressure, Loco type with all fittings and stack complete
- (2) **Generator Set**—50 kw., 250 volt, d. c., direct connected to 2-phase, 60-cycle, 220-volt meter
- (3) **Locomotive (Steam)**—50 to 60 ton, good running shape, 44 in. gauge
- (4) **Mine Ventilating Fan**—150,000 cu. ft. per min. capacity, 3-in. water gauge, to be driven by motor, a. c., 3 phase, 60 cycle, 220-440 volts
- (5) **Motor (Slip Ring)**—200 h. p., 2 phase, 60 cycle, 220 volt, 1200 r. p. m. (meter only), with reversing or non-converting drum controller with resistance for starting duty only, can use 150 h. p. or 250 h. p.

Hunter Machinery Co. (Mchy. Dealer), 1229 W. Morehead St., Charlotte, N. C.—Wants prices and data on following:

- (1) **Boiler**—return tubular, 200 h. p., insurable at 150 lb. pressure when reset
- (2) **Lathe**—used, good condition, 14-in. swing, 6 to 8-ft. bed, taper attachment, modern type.

Miscellaneous

Glassware.—T. M. Hoover, Hoover Chair Co., Lexington, N. C.—Wants prices and data from firms in position to manufacture and finish glassware for smoking stands.

Pipe.—Hackley Morrison (Mchy.), Mutual Bldg., Richmond, Va.—Wants prices and data on 2000 ft. 2 or 2½-in. galv. pipe and 2500 ft. 1½-in. galv. pipe, good condition, good threads.

Lead Tubes (Collapsible).—Shenandoah Mfg. Co. (Brooding Systems, Heating Plants, etc.), Harrisonburg, Va.—Wants prices and data from manufacturers of collapsible lead tubes; about 1 or 2 oz. capacity.

Paper Towels.—A. K. Robins & Co., Inc., Lombard and Concord Sts., Baltimore, Md.—Wants prices and data from manufacturers of paper towels; either flat or in rolls, containing about 150 towels each.

S. A. Fort (Wholesale Dealer in Notions, etc.), East Gastonia, N. C.—Wants prices and data from manufacturers of the following: Shoe laces, safety pins, pins, combs, brushes, suspenders, belts, garters, handkerchiefs, rubber heels, half soles, pocket books, shears, needles, tooth brushes, etc.

Sam S. Laughlin, 209 N. E. 23rd St., Oklahoma City, Okla., wants data from schools in West on estimating course for builders.

Tate-Phillips Co., 240-240 S. Wilson Ave., Bartow, Fla.—Wants prices and data from manufacturers of parts used in manufacturing fish bait minnows, including eyes, hooks, eyelets, spinners, etc.

Building Material and Equipment

Taylor-Parker Co., Inc. (Mchy. and Supplies), Water St. and Commercial Pl., Norfolk, Va.—Wants prices on following, price and location in first letter:

I-Beams—10, 15 to 18 in., 32 ft. long.

T. A. Pittman, Inc., 732 Canal Bank Bldg., New Orleans, La., contractor for \$75,000 school at Houma, La., wants prices and data on:

- Cast stone
- Tile Floors
- Marble
- Roofing—built-up, tile.

Bids Asked

Alleys.—Baltimore, Md. See Construction News—Roads, Streets and Paving.

Armored Cable, etc.—U. S. Engr. Office, Huntington, W. Va.—Bids Aug. 26 for armored cable, etc.

Beds.—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids Aug. 25 for 248 surgical beds and 50 hospital beds for east and west yards.

Boilers.—Comms., D. C., Washington, D. C.—Bids Sept. 4 for horizontal return tubular boilers.

Bridge Superstructure.—Albert O. Smith, County Supt. of Highways, Office of Bd. of Suprvs., Suffolk County, Riverhead, N. Y.—Bids Aug. 31 for constructing superstructures of 2 highway bridges, one near Sag Harbor to be known as Shelter Island-Sag Harbor highway bridge, County Road 44, and one near Greenport; to be known as Shelter Island-Greenport highway bridge, County Road 45; Robinson & Steinman, Engrs., Roebling Bldg., 117 Liberty St., New York.

Bridge.—Baltimore, Md. See Construction News—Bridges, Culverts and Viaducts.

Bridges.—State of South Carolina—Bids for 13 bridges. See Construction News—Roads, Streets and Paving.

Bridges.—State of Missouri—Bids for 20 bridges. See Construction News—Roads, Streets and Paving.

Cafeteria Equipment.—Treasury Dept., Office of Supv. Archt., Washington, D. C.—Bids Sept. 4 for furnishing and installing fixed permanent equipment for cafeteria, U. S. post office, etc., Baltimore, Md.

Cabinets.—Purchase and Issue Sub-division, Veterans' Bureau, Washington, D. C.—Bids Sept. 1 for aseptic cabinet and 2 supply cabinets.

Cell Work.—Comms., D. C., Washington, D. C.—Bids Aug. 26 for furnishing complete in place certain work in two cell houses at D. C. reformatory, Lorton, Va.

Chairs.—Comms., D. C., Washington, D. C.—Bids Aug. 28 for furnishing and installing assembly hall chairs as follows: 900 in Gordon Jr. High; 214 in Brown Jr. High; 650 in Young School; 230 in Eliot Jr. High; 218 in Deal Jr. High.

Cleaners, etc.—General Supply Committee, Washington, D. C.—Bids Aug. 29 for cleaners, scouring compounds, soaps and household supplies, during period Oct. 1 to Dec. 31, 1931.

Comfort Stations.—See Sewage Disposal Plants.

Crane.—Supt. of Lighthouses, 342 Custom House, Baltimore, Md.—Bids Sept. 2 for furnishing gasoline mobile crane.

Domestic Science Equipment.—Comms., D. C., Washington, D. C.—Bids Aug. 25 for domestic science equipment, including 3 clothes washing machines, 6 fireless cookers, 3 gas clothes dryers, 15 gas ranges, 6 wall cases and 30 domestic science tables.

Dredging.—U. S. Engr. Office, 300 Customhouse, Baltimore, Md.—Bids Sept. 3 for dredging in entrance to Craighill Section of channel leading to Baltimore, material est. approx. 1,050,000 cu. yd., scow measure.

Dry Goods, etc.—General Supply Committee, Washington, D. C.—Bids Aug. 28 for dry goods, flags and cordage, during period Oct. 1 to Dec. 31, 1931.

Filter and Pumping Works.—See Water Works.

Furniture.—Foreign Buildings Office, State Dept., Washington, D. C.—Bids Sept. 17 for special hand made furniture for American embassies and legations in foreign countries for fiscal year, including tables, sofas, chairs, telephone stands, beds, mirrors, secretaries, bookcases, clocks, etc., of mahogany, maple, cherry and walnut.

Gate Engine Repairs.—U. S. Engr. Office, Huntington, W. Va.—Bids Aug. 25 for repairing gate engine, U. S. Lock 15.

Headquarters Building, etc.—Office of Quartermaster, Richard Field, Kansas City Airport, 140 Richards Rd., Kansas City, Mo.—Bids Sept. 3 for addition to headquarters building, including installing hot water heating plant, at Richards Field.

Hospital Beds.—Purchase and Issue Sub-division, Veterans' Bureau, Washington, D. C.—Bids Aug. 25 for 3 hospital beds.

Hot Water Heating Plant.—See Headquarters Building, etc.

Hydro Electric Plant.—City of Martinsville, Va., A. S. Gravely, Ck.—Bids Aug. 26 for additions and changes to municipal hydro-electric plant; work includes 200 cu. yds. earth excavation, 975 cu. yds. rock excavation, 201 cu. yds. removing old masonry, 120 cu. yds. rubble masonry, 428 cu. yds. conc. masonry, Class A. Type 1; 703 cu. yds. conc. masonry, Class A. Type 2; 80,000 lbs. rein. steel and dowels, power house and superstructure, 35,000 lbs. receiving, hauling and placing misc. materials, 300 cu. yds. common excavation and 500 cu. yds. rock excavation for grading roadway and construction of fills; excavation in Tailwater Channel; Saville & Williamson, Inc., Conslt. Engrs., 603 Electric Bldg., Richmond, Va.

Lawn Sprinklers.—Purchase and Issue Sub-division, Veterans' Bureau, Washington, D. C.—Bids Aug. 30 for lawn sprinklers.

Lighting Fixtures.—Commanding Officer, Washington Quartermaster Depot, 20th & C Sts., N. W., Washington, D. C.—Bids Aug. 28 for lighting fixtures.

Lighting System.—Oliver G. Taylor, Engr in Charge, Colonial National Monument, Yorktown, Va.—Bids Aug. 26 for furnishing material and labor for complete installation

of lighting system for Yorktown Sesquicentennial Celebration, Yorktown, Va., and for complete removal of same; information on application.

Miscellaneous.—Panama Canal, Office of Gen. Pur. Officer, Washington, D. C.—Bids Sept. 3 for following, Sch. 2678:

Fire engine, crane and hoist, rein. bars, galv. roofing, dipper lips, steel conduit, flanged unions, track spikes, track bolts, refrigerator casters, insulated cable, cord and wire, cable terminals, anodes, mica, insulation, asbestos gaskets, millboard, packing, belting, etc.

Miscellaneous.—Panama Canal, Office of Gen. Pur. Officer, Washington, D. C.—Bids Aug. 31 for following, Sch. 2677:

Floor tile, slate blackboards, bulletin boards, hospital beds, bedside tables, gate valves and asphalt.

Miscellaneous.—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids Aug. 25 for furnishing bolts and nuts, machine and wood screws, compasses and dividers, motor generator sets, delivery Navy Yard, Washington.

Paving.—Washington, D. C. See Construction News—Roads, Streets and Paving.

Pipe (Cast Iron).—City, Office of City Secretary, 225 City Hall, Houston, Tex.—Bids Aug. 26 for furnishing following cast iron pipe: Approx. 1300 lin. ft. 8 in., B&S, class B or class 150; approx. 100 lin. ft. 6-in. B&S, class B or class 150; prices to be per lin. ft.; W. E. Monteith, Mayor.

Pump (Deep Well).—U. S. Engr. Office, Huntington, W. Va.—Bids Aug. 25 for deep well pump, for London Lock, Kanawha River, London.

Refrigerators.—Commanding Officer, Washington Quartermaster Depot, 20th and C Sts., N. W., Washington, D. C.—Bids Aug. 31 for refrigerators.

Register and Reels.—Comms., D. C., Washington, D. C.—Bids Aug. 31 for registers and take-up reels.

Reservoir.—See Water Works.

Reservoir.—Dist. Comms., Room 500 District Bldg., Washington, D. C.—Bids Aug. 31 for constructing conc. Anacostia reservoir in Fort Stanton Park, cost \$80,000; drawings and specifications may be obtained at Room 427, District Bldg.

Road.—Clayton, St. Louis, Mo. See Construction News—Roads, Streets and Paving.

Roads.—State of Kentucky—Bids for 2 roads. See Construction News—Roads, Streets and Paving.

Roads.—State of South Carolina—Bids for 18 roads. See Construction News—Roads, Streets and Paving.

Roads.—State of Missouri—Bids for 29 roads. See Construction News—Roads, Streets and Paving.

Road.—Maryland. See Construction News—Roads, Streets and Paving.

Roof Work.—Comms., D. C., Washington, D. C.—Bids Aug. 26 for furnishing and installing certain slate roofing on buildings at D. C. reformatory, Lorton, Va., and D. C. workhouse, Occoquan, Va.

Roof Work.—Holabird Q. M. Depot, Baltimore, Md.—Bids Aug. 25 for repairing roofs of 5 buildings.

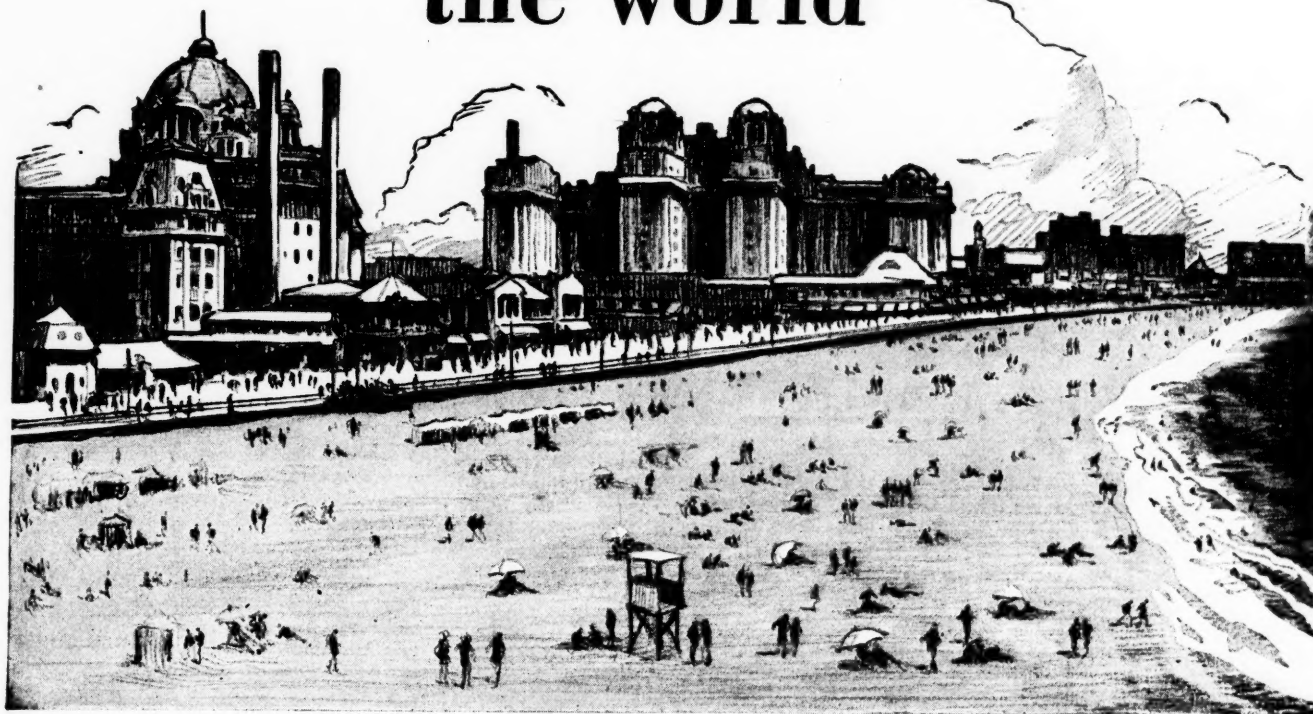
School Repairs, Equipment, etc.—Bd. of Awards, Office of City Register, City Hall, Baltimore, Md.—Bids Aug. 28 for alterations for shower equipment, School No. 293, Howard and Centre Sts.; for furnishing and installing hot water heater and tank, School 292; furnishing miscellaneous supplies and other equipment for various schools, and for furnishing, delivering and installing cafeteria equipment for East Baltimore Colored Jr. High School; Joshua R. Jolly, Acting Sec., Bd. of School Comms.

Sewer Construction.—Comms. of Sewerage, Louisville, Ky., Frank D. Rash, Acting Chmn., Woolsey M. Caye, Tech. Eng.—Bids Aug. 28 for Trevilian Way trunk sewer, Section A, Contr. No. 59; work includes 1032 ft. of 7 ft. 6 in. x 7 ft. and 1194 ft. of 6 ft. x 7 in. twin rectangular rein. conc. sewer; 904 ft. 6 ft. 9 in. and 444 ft. of 6 ft. 3 in. semi-elliptical rein. conc. sewer; earth excavation; rock excavation; 935,000 lbs. steel rein. bars, etc.

Sheet Metal and Shop Equipment.—Comms., D. C., Washington, D. C.—Bids Sept. 2 for sheet metal and wood shop equipment, including 3 lathes, 3 grinders, 3 planers and pointers, 3 saw benches, 3 sanders, 12 wall cases, 48 woodworking benches, 6 glue benches, 3 stake benches, etc.

Siren.—See Fire Hose, etc.

At "the playground of the world"



"We are using deLavaud pipe exclusively in all obtainable sizes"

"About 7 years ago we started using cast iron pipe made by the deLavaud centrifugal process. This pipe proved so satisfactory that we are using it exclusively in all obtainable sizes." Thus writes Mr. L. Van Gilder, Engineer and Superintendent of the water department of Atlantic City, N.J.

Other cities in all parts of the country are aware of the efficiency and economy of deLavaud pipe. Springfield, Mass., Detroit, Michigan; Ft. Worth, Texas have purchased many miles of deLavaud Pipe for underground mains.

DeLavaud Pipe is produced by pouring molten iron into a rapidly revolving cylindrical mold. Centrifugal force holds the iron against the sides and drives out air bubbles and impurities with a force many times greater than gravity.

DeLavaud Pipe is light in weight, easy to handle and easy to cut and tap. At the same time, tests have proved that it is at least 25% stronger than good pit cast pipe. The deLavaud hand-book gives detailed specifications. Write for free copy today.

United States Pipe and Foundry Co., Burlington, N.J.

Sales Offices:
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Our pipe bears the "Q-Check"
trademark of The Cast Iron
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Dallas
Birmingham
Kansas City

Minneapolis
Seattle

San Francisco
Los Angeles

Sprinkler System.—See Street Lighting System, etc.

Steel Wool.—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids Sept. 1 for 24,800 lb. steel wool for east and west yards.

Stationery, etc.—General Supply Committee, Washington, D. C.—Bids Aug. 26 for stationery, paper, paper articles and school supplies, during period Oct. 1 to Dec. 31, 1931.

Street Lighting System, etc.—Office of David Lynn, Archt. of Capitol, Washington, D. C.—Bids Sept. 17 for construction of house, walks, installation of underground sprinkler system, street lighting system, etc., in Squares 576 and 578 in connection with United States Botanic Garden; plans, etc., may be obtained after Aug. 22 at office of Archt. of Capitol.

Street.—St. Louis, Mo. See Construction News—Roads, Streets and Paving.

Transmitter Repairs.—Div. of Purchase and Sales, Dept. of Commerce, Washington, D. C.—Bids Aug. 28 for alterations to 10 radio beacon transmitters.

Type.—Comms., D. C., Washington, D. C.—Bids Aug. 31 for type for print shops, public schools.

Water Meters, etc.—City, Office of A. A. McNeel, City Clk., Louisville, Miss.—Bids Sept. 1 for furnishing 200 water meters and meter boxes, more or less.

Water Works.—Town of Grayson, Ky., Howard K. Bell, Conslt. Engr., 727 McClelland Bldg., Lexington.—Bids Aug. 27 for construction of complete water system, including filter and pumping works; supply line and distribution system; 100,000 gal. steel reservoir.

Trade Literature

Buckets and Trailers.—The G. H. Williams Company, Erie, Pa., manufacturers of clamshell and dragline buckets and heavy duty trailers, have issued three circulars devoted to their products. A four-page publication illustrates and describes the Williams new "Champion," a fast rehandling bucket for unloading cars and barges and for cleaning up shallow piles of material, etc.; a circular of similar size is devoted to the Williams "Transport" trailer of 5, 10 and 15-ton capacities, and a two-page circular to the Williams "Economy" trailer.

Blaw-Knox Steel Products.—The Blaw-Knox Company, Pittsburgh, Pa., manufacturers of steel products, have issued catalog No. 1302, devoted to Blaw-Knox steel storage bins, measuring equipment, ready mixed concrete plants and truck mixing and concrete agitating bodies. Illustrations show the various products and some of their important applications.

Safety Panelboard.—The Switch & Panel Division of the Square D Company, Detroit, Mich., has issued a supplementary section to Bulletin CA-505, describing its Standard Convertible Safety Panelboard. This section, designated as Bulletin CA-505-A, is devoted to the new shallow type unit with capacities up to and including 100 amperes, 250 volts.

Wood Preservative.—Builders Service Folder 80 and Service Folder 91 have been issued by the Carbolineum Wood Preserving Co., Milwaukee, Wis., manufacturers of a wood preservative sold under the trade name Avenarius Carbolineum. This product, designed for treating poles, cross-arms, ties, pins and other wood products, is briefly described in the folders and some of its applications are outlined.

Facts About Atlanta.—The Industrial Bureau of the Chamber of Commerce of Atlanta, Ga., is distributing a pamphlet "Facts in Figures About Atlanta." It deals with transportation and communication facilities, homes, stores, offices, churches and educational institutions, population, factories, strategic location and other subjects.

Wood Preservation.—"Quantity of Wood Treated and Preservatives Used in the United States in 1930" is the title of the twenty-second annual statistical report on wood preservation in the United States as compiled by the Forest Service of the United States Department of Agriculture, in cooperation with the American Wood Preservers' Association. It was prepared by R. K. Helphinstine, Jr., from information furnished by treating plants throughout the country.

Bridge Floor Construction.—The Carnegie Steel Company, Pittsburgh, Pa., subsidiary of the United States Steel Corporation, has issued a booklet on T-Tri-Lok Bridge Floor Construction, a new form of slab construction involving structural tees in combination with lighter flat bars mechanically interlocked with the tees. It is a product of the Carnegie Steel Company and was designed primarily to reduce the weight of the roadway floor of bridges.

Business Organization.—In order to secure information as to the type of duties usually assigned to an Assistant to the President in business organizations, the Policyholders Service Bureau of the Metropolitan Life Insurance Company, New York, made an investigation among companies having such positions in their respective organizations. Results of the survey are incorporated in their thirteenth report, "Functions of an Assistant to the President," in the company's series of publications on business organization.

Dow Chemical Literature.—Literature recently issued by the Dow Chemical Company, Midland, Mich., with branch offices in New York City and St. Louis, Mo., includes a booklet "Dow Calcium Chloride for Refrigeration," in which the uses and advantages of this product are set forth. The company is also distributing a pamphlet, "Dow Organic Solvents," designed to aid users of solvents in selection of an "ideal product for their uses" and to supply information for those who may "desire to find a method of handling difficult processes and materials through the use of a good solvent."

Virginia's Advantages for Industry.—The Virginia State Chamber of Commerce, Richmond, has issued a booklet, "Merits of Virginia for Manufacturers," prepared by Clarence W. Newman, director of research for the committee on industrial development of the Chamber. Mr. Newman deals initially with the subject of Trends in Industry in Virginia, touching upon the diversity of Virginia industry, rayon and cellophane manufacture, pulp and paper, wood products, textiles, ships, tobacco, fertilizers and fixed nitrogen. He then treats broadly the following subjects: Transportation and Markets, Industrial Raw Materials, Fuel Resources, Electric Power, Industrial Water Supplies, Man Power, Climatic Conditions, Taxation and Government, Availability of Capital, and Building Sites and Costs. The publication presents a map showing railroads in Virginia and directs attention to sources of information about the state.

Railroad Information.—The Committee on Public Relations of the Eastern Railroads, J. M. Fitzgerald, vice chairman, New York, has issued the 1931 edition of "A Yearbook of Railroad Information." The book is designed as a ready reference for "authoritative facts relating to the railroad industry." It presents a statement of the present railway situation, with an outline of what has been done in recent years toward solving the railroad problem from the viewpoint of three interested classes—the shipping and traveling public, railway employees and investors in railway securities.

Sound Control Service.—The United States Gypsum Company, Chicago, is distributing a booklet devoted to the company's sound control service covering the whole range of architectural acoustics. This includes absorption treatments to clarify reception of sound and reduce noise, and sound insulation to prevent the travel of sound from one room to another. The book is well illustrated, the views showing sound control work incorporated in buildings designed by prominent architects.

Wire and Wire Rope.—A new general catalog has been issued by the John A. Roebling's Sons Company, Trenton, N. J., manufacturers of wire and wire rope, insulated wire and cables, wire cloth and nettings. The catalog is attractively bound and presents wire rope lists of January 1, 1930, and fittings lists of July 15, 1930, and outlines in detail grades, constructions, sizes and applications of rope suitable for various purposes. The Roebling Company has a Southern office in Atlanta.

INDUSTRIAL NEWS

Durabilt Steel Locker Officers

The Durabilt Steel Locker Co., Aurora, Ill., manufacturers of lockers, storage and wardrobe cabinets, announce new officers as follows: E. D. Kaser, president and general manager; V. C. Kaser, vice-president; H. S. Hatch, treasurer and manager of sales, and W. H. Graham, secretary. The new president, formerly secretary-treasurer of the company, succeeds C. W. Killian, who resigned because of ill health. Mr. Kaser was graduated in 1911 from Armour Institute as an electrical engineer. D. V. Trapp has been appointed purchasing agent, succeeding E. V. Pauly, resigned.

Doherty Receives Honorary Degree

At commencement exercises in June, Lehigh University awarded the honorary degree of Doctor of Engineering to Henry L. Doherty, president of Cities Service Company and head of Henry L. Doherty & Company, New York. This award was in recognition of Mr. Doherty's "distinguished contributions to the art and the science of gas, electric and petroleum production, distribution and utilization."

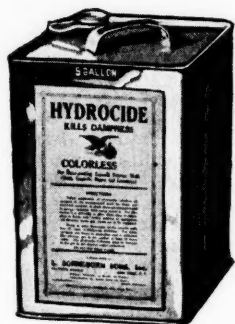
(Continued on page 54)

L. SONNEBORN SONS, Inc.

GUARANTEED PRODUCTS

Put Hydrocide Colorless On Guard

...and No Water Will Enter Your Walls!



LET the rain pour, the snow beat, the fog and the dampness try to creep through! Hydrocide Colorless Waterproofing will shut all moisture out and keep your walls bone-dry. Brick, stone, stucco or cement—Hydrocide seals them all *tight against the elements.*

Hydrocide Colorless goes on like water with a spray or brush. Deeply penetrates the material and permanently caulks the pores. Absolutely invisible when applied.

Hydrocide Colorless contains no paraffin. Will not crack in the cold or run in the heat. Prevents discoloration and preserves the natural beauty of brick and stone.

Many of America's most noted plants and buildings have been waterproofed at low cost by Hydrocide Colorless.

KAUKIT **B**EFORE you apply Hydrocide Colorless, inspect all window and door frames to see if they are tight. Look at all mortar joints for breaks. Wherever there is a crack or fissure, caulk it with Kaukit, the elastic caulking and glazing compound that is absolutely weatherproof.

Whatever your waterproofing problems, let Sonneborn experts help you. Our counsel is gladly given without obligation. Write for full particulars about any Sonneborn product that interests you.

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For all types of floors. Produces a durable, dustless, sanitary, high-gloss finish. Comes in colors.

MAINTENANCE PAINTS

For All Purposes

Complete line for interior and exterior surfaces and for machinery, boilers, tanks, stacks, etc.

(Continued from page 52)

Standard Gas and Electric Report

Combined net earnings of subsidiary and affiliated companies of the Standard Gas and Electric Company, Chicago, for 12 months ended June 30, 1931, showed a decrease of 2.68 per cent as compared with the previous 12 months, according to John J. O'Brien, president of the company. Gross earnings were \$150,613,044, as compared with \$155,537,442 and net earnings \$73,009,108 as compared with \$75,022,681. The Louisville Gas and Electric Company, a subsidiary, had gross earnings for the period of \$10,834,510, as compared with \$10,391,661 and net earnings of \$5,752,031, as compared with \$5,401,556, while the Oklahoma Gas and Electric Company, another subsidiary, had gross earnings of \$13,063,747, as compared with \$14,676,253 and net earnings of \$6,048,671, as compared with \$6,867,985.

Slash Pine for Coast Lands

The planting of slash pine and protection of growing stands are recommended by the Forest Service of the Department of Agriculture, as measures to insure a steady income from many non-agricultural lands along the south-east coast from South Carolina to Louisiana. Fire must be kept out and efficient forest management is essential if satisfactory net returns are to be obtained, it is said. Further:

"Slash pine is the great dual-crop tree of the Southern coastal plain. This tree produces the heaviest crops of naval stores and also produces valuable timber. It is also the quickest grower of the four leading Southern pines.

"A native of the wetter lands of the coastal plain, it has a tendency to spread widely on cut-over lands and old fields. Seeding heavily, it is one of the easiest trees to propagate naturally. Young trees of this species are grown by many of the Southern state forestry departments and are available for planting by farmers and other timberland owners.

"Gum yields from a 12-inch slash pine are about 11.2 pounds per year, under improved methods introduced by the Forest Service. This quantity of gum makes about one-third of a gallon of turpentine and seven pounds of rosin.

"The Forest Service recommends protection of the stands from fire. Thinning methods are also suggested, some types of management being best adapted to lumber production, others to growing crops of pulpwood or turpentine, or to the production of all three. From 12 to 60 cords of pulpwood per acre may be grown in 20 to 30 years. If managed for lumber, slash pine will grow 7000 to 18,000 board feet per acre in 30 to 40 years.

"Methods of handling slash pine for profit, tables of growth, planting and thinning methods well illustrated, a form of naval stores crop contract, and other information of value to the

Manufacturers' Finance Report

The report of the Manufacturers' Finance Company, Baltimore, and its subsidiaries, for six months ended June 30, 1931, shows net earnings of \$118,234. At the end of this period there was a surplus of \$138,360 after deducting \$78,873 for preferred dividends; \$47,351 for net loss from liquidation of installment business, and \$3,745 for adjustments. V. G. Dunnington is president of the company.

Vice President and Sales Director

The Headley Emulsified Products Company, Edgar S. Ross, president, Philadelphia, announces appointment of J. G. Campazzie as vice president, directing sales. The company has offices also in New York and Chicago.

grower are included in Farmers' Bulletin, 1256-F, just issued."

In recent months much progress has been made in the experimental use of slash pine in the manufacture of paper. In fact some authorities predict slash pine will be widely used for this purpose in the future.

Roofer's Joint Convention

The first joint convention of the National Association of Sheet Metal Contractors, the Roofing Division of the National Slate Association and the United Roofing Contractors Association of North America will be held at Louisville, Ky., the week of January 25, 1932. E. M. Pope, 58 West Washington street, Chicago, is chairman of the publicity committee.

More Farm Land Sales

One of the land banks operating in the Carolinas disposed of more farm land during July than it sold during any other month this year. Ordinarily mid-summer is not the best time for farm land sales. The land bank's experience tends to confirm the belief of some agricultural economists that farm land values have reached rock-bottom, and that in general only a rise may be expected now. Indications are that the bank will dispose of more land in August than in July.

Dave Dermon, president of the Dave Dermon Co., Memphis, Tenn., announces plans for construction of a \$200,000 suburban theater with a seating capacity between 1200 and 1500.

History Repeats After 10 Years

"Remedies for Ills; A Pathway to Prosperity" is the heading of a chapter in the report of the then Comptroller of the Currency, John Skelton Williams, issued December 6, 1920. It is so applicable to conditions today that we are reprinting it as follows:

"Reiteration of certain indisputable basic facts and deductions may be useful in helping to drive into the minds of the business community and our people generally the fundamental and only remedies for existing hindrances and assurances for renewed stability and prosperity.

"The prices of many basic commodities and leading raw materials have already returned to a pre-war basis, while some articles are now below the prices of 1914. It now remains for the middleman to adjust his profits to the new prices before the ultimate consumer will receive the benefit of the reduced cost of living.

"The laboring man will soon be in a position where he must determine whether he prefers a shut-down and idleness to a lower wage scale which must take into consideration the lower living charges. Unless manufacturers can turn out their products at prices at which the public will buy and can afford to buy, the mills and factories cannot afford to run; but obviously it is better for manufacturers to operate and produce goods at cost or at a very narrow margin of profit rather than close down entirely. The attention of this office was directed some time since to the case of a large steel manufacturer employing many thousands of men who threatened to close his factories and throw his employees out of work unless certain large consumers of steel and iron products would place their orders at prices that would yield him a profit three times as great as the normal or average profit. Such an attitude, of course, is wholly indefensible and is deserving of the severest public condemnation.

"* * * It is clearly far better for workingmen, as the cost of living declines, to agree to a readjustment of wages on a basis which will permit factories to run and the wheels of industry to revolve, rather than to hold out for wages which it will be impossible for employers to pay when obliged, as they will be, to meet keen competition at home and abroad.

"It is hoped and believed that our working people and manufacturers will both appreciate these simple and economic realities and that arrangements will be perfected with the owners of mills and factories which shall secure to the laborer his full share of the profits and that he will be allowed to participate with capital in whatever earnings may be realized over and above a far return on the capital invested. Only on this principle can we expect to restore business, bring about renewed industrial activity, and establish a permanent and countrywide prosperity and contentment."

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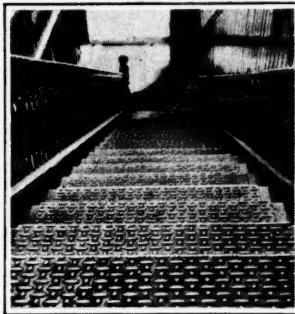
Wherever lumber and timber are used for floorings, ceilings, fencing, posts, etc., there is always danger of decay, dry rot and termite attack unless the wood is permanently preserved with ZMA or CREOSOTE *pressure applied*.

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Norfolk-Portsmouth Industrial Development

Comparative Survey Shows Notable Upward Trend

Norfolk, Va.—According to a comparative survey by the Norfolk-Portsmouth News Bureau, covering the industrial development of the Norfolk-Portsmouth area for a seven-year period beginning January 1, 1924, production values have more than doubled, as have the number of people employed in industry. Also the area shows a wide diversification of manufacturing activities. Production values increased from \$38,655,100 to approximately \$102,000,000 and the employed personnel enlarged from 7554 in 1923 to about 17,342 in 1930. There are 306 manufacturing plants in the area, each having an annual production in excess of \$5000. The employed personnel at the Navy Yard is not included in the above figures, although there are about 3600 civilian workers engaged there.

The area is said to rank second to none in the United States in the manufacture of fertilizer, this industry em-

bracing more than a score of plants, which have located largely because of the availability of imported raw materials.

During 1930 the combined payroll for all plants in the area was estimated at \$22,293,300, with the addition of payrolls of plants locating here since the U. S. Census figures were compiled. It was also estimated that this payroll was shared by 20,942 workers, including civilian workers at the Navy Yard. Salaries of railway workers, with the exception of employees of railway repair shops, are not included in the payroll estimate.

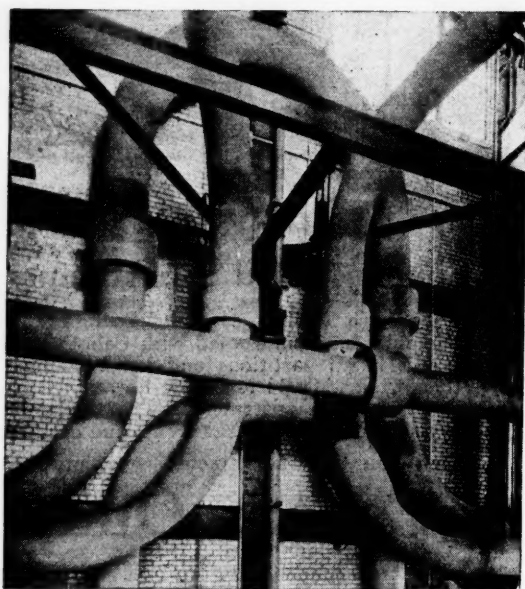
The number of wholesale plants in the district, based on a recent report of the United States Department of Commerce covering distribution in 1929, is estimated at 292, including 194 classified strictly as wholesalers, 41 as brokers, 22 as manufacturers' sales branches, 13 as manufacturers' agents, 8 as selling

agents, 6 as bulk tank sections, 4 as factors, 3 as chain store warehouses and one as an auction company. For the year the total payroll of this class of business was estimated at \$5,324,096 and the volume of business at \$138,305,638.

Companies operating in food and tobacco products reported 48.7 per cent of the total volume of business, valued at \$67,400,422; food products companies, except dairy and poultry, reported a volume of \$29,260,216 or 21.1 per cent of the total; farm supplies, \$9,134,070 or 6.6 per cent; metals and minerals, except iron and steel scrap, \$7,206,493 or 5.2 per cent.

Retail trade is represented by 1767 single store independents, 78 units of two-store multiples and 18 units of three-store multiples, including 138 local chain units, 56 sectional chain units and 71 national chain units. Food stores totaled 864 or 22 per cent and included 424 groceries, bakeries totaled 22, automotive establishments 218 or 16 per cent of the total, filling stations 114, garages 46, apparel stores 239, department stores 9, dry goods stores 24, general stores 23, and variety shops 20. In the lumber and building group there were 85 stores and yards, while the furniture and household trade were represented by 58 stores. There were also 78 drug stores and 214 restaurants.

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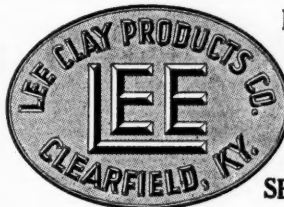
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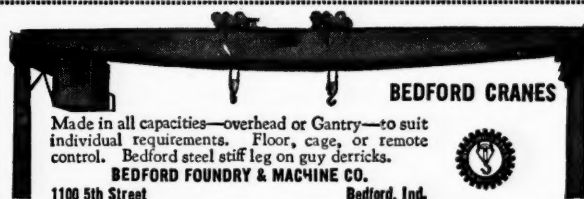
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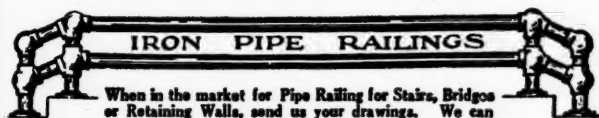
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Profit in Peanut Pork

By J. FRANCIS COOPER, Editor, Florida Agricultural Extension Service, Gainesville

The Southeast is in a fair way to cash in on one of its outstanding products which has always sold at a discount if efforts now under way to popularize peanut pork meet with success.

Realizing the intrinsic value of peanut pork, various individuals and organizations have made sporadic efforts during recent years to advertise the merits of this product, and to popularize it with the consuming public. Such efforts were crystallized a few months ago by the Florida Agricultural Extension Service, which sponsored a series of "peanut pork luncheons" in the state, some of which are still being held from time to time.

As a result of the increased interest, the Southeastern Peanut Pork Association was organized at a meeting in Valdosta, Georgia, on July 23 and 24. This meeting was attended by representatives of the agricultural extension and marketing forces, packers, and farmers from Florida, Alabama, and Georgia.

G. W. Ray, extension marketing agent at Auburn, Ala., was elected president; L. M. Rhodes, State Marketing Commissioner, Jacksonville, Fla., vice-president; and R. W. Cammack, Agricultural Agent, S. A. L. Ry., Savannah, Ga., secretary. The executive committee is composed of L. N. Duncan, director of extension, Auburn, Ala.; Dr. Wilmon Newell, director of extension, Gainesville, Fla.; J. Phil Campbell, director of extension, Athens, Ga.; H. McDowell, manager, Swift & Co., Moultrie, Ga.; Jacob Ungerman, manager, Birmingham Packing Co., Birmingham, Ala.; and D. D. Faircloth, manager, Gulf Coast Market Association, Trenton, Fla.

The purpose of the organization is to improve swine production and to extol the good qualities and value of peanut pork.

Swift & Company, who pack large amounts of Southeastern peanut pork at their Moultrie, Ga., plant, are spending \$50,000 advertising the product in the Southeast and other parts of the nation.

Hogs and peanuts were introduced to the North American continent through Florida, the hogs by Ponce De Leon and De Soto, and peanuts by other early Spanish settlers. One species of the peanut still bears the name, "Spanish." Although this happened four centuries ago, it is only in recent years that the

two products have got together, or formed a partnership.

The peanut pork industry—in which hogs are raised largely on peanuts that they harvest when turned into peanut fields—began to reach substantial proportions from 1910 to 1915. Southeastern farmers knew that peanuts made good hog feed, and they learned that hogs could be made to harvest their own peanuts, thus lessening labor costs connected with hog raising.

The peanut, being an oily feed, produces a soft, oily pork. At first the packers, accustomed to firm corn-fed pork, penalized the peanut pork about four cents a pound when they bought it. Yet it is a tender, delicious product. People who ate it liked it and the demand grew gradually, until the penalty imposed by the packers now is only one cent a pound, not all of which is due to the fact that the pork is soft and oily. Already, one Southeastern state has capitalized its peanut pork. The Smithfield hams of Virginia are renowned throughout the country, and sell at a premium on the retail market.

H. McDowell, manager of Swift & Co.'s Moultrie plant, feeling that the peanut hams of Florida, Georgia and Alabama, which Swift had been packing in its Southern plants, were of excellent quality and deserving of wider distribution, caused the company to start some experiments in wrapping peanut pork in cellophane. The process kept the pork sound, prevented oiliness from being an objection, and made a very attractive package. The company also started experiments in properly curing the pork, and has evolved a tender, juicy and palatable product.

Florida's income from hogs now averages about \$7,000,000 a year. No doubt the income from hogs in this state and other states of the Southeast will mount when there comes a wider realization of the full value of peanut pork, which Mr. McDowell terms the Southeast's undeveloped gold mine.

Tractor Plow Factory for South

Jacksonville, Fla.—P. R. McCrary, of the McCrary Engineering Co., Jacksonville, announces important improvements to his tractor plow, known as "McCrary's Mechanical Mule," and announces plans to organize a company for construction

and operation of a factory in the South. At present the tractor is being manufactured at York, Pa. The Federal Farm Equipment Co., with offices at Jacksonville is being organized as a selling agency.

Purchase Furniture Factory

Toccoa, Ga.—The old Diana Furniture Factory here has been purchased by Forrest Additon, Flowery Branch, Ga., through Col. Clay Davis of John H. Davis & Son, local attorneys, and plans are being made to rebuild the plant and install new machinery for early operation.

Col. Davis also reports he has a large group of Eastern bankers interested in developing three large hydro-electric power sites, contemplating total expenditures around \$50,000,000.

Survey of Alabama's Chemical Possibilities

Birmingham, Ala.—A survey undertaken by Stewart L. Lloyd of the University of Alabama is designed to present possibilities in the state for chemical development. The Birmingham Industrial Board is sponsoring the movement, in order to bring out data as to native materials from which chemicals can be obtained, with appropriate suggestions. Already, a number of chemical industries are under operation in Alabama, such as the Swann Corporation, and future developments will be felt in agricultural, industrial and other circles.

To Use Cotton Twine

Cotton twine will be used for wrapping packages passing through the New Orleans post office to determine whether it is possible to replace jute twine now in use, according to Postmaster W. L. S. Gordon of New Orleans. The office uses more than 10,000 pounds of wrapping twine a year. Cotton twine will be used also in post offices in other Southern cities.

20,000,000 Cubic Feet Natural Gas Daily for St. Louis

St. Louis, Mo.—According to George M. Parker, assistant to the president of the Mississippi River Fuel Corporation, more than 20,000,000 cubic feet of natural gas is used in St. Louis daily. It is supplied by a 430-mile pipe line from the Monroe field of Louisiana, having a daily capacity of 100,000,000 cubic feet.

FINANCIAL NEWS

Bond Issues Proposed

Ala., Gadsden—City Comsn. opens bids Sept. 1 for \$175,000 funding bonds. 7-23

Ala., Tuscaloosa—City, Office of City Clk., opens bids Aug. 27 for \$120,000, not to exceed 5½% sewer bonds. 7-30

Ark., Monticello—Drew County, W. E. Spencer, County Judge, rejected bids for \$150,000, 5% courthouse bonds. 7-30

Ark., Texarkana—Miller County Consolidated School Dist. No. 2, Earl Higginbotham, Pres., reported, opens bids Aug. 29 for \$35,000 school bonds.

Ark., Warren—Warren School Dist. sold \$35,000, 6% bonds to Simmons National Bank, Pine Bluff, at par and accrued interest.

Fla., Bartow—Eagle Lake Special Tax School Dist. No. 9, Hugh W. Wear, Chmn., Bd. of Public Instruction, opens bids Sept. 2 for \$10,000, 6%, \$500 denom. bonds. 7-30

Fla., Jacksonville—City Comms. voted to ask City Council to call special election on \$1,500,000 public improvement bonds.

La., Newellton—City, H. C. Lang, Acting Mayor, received no bids for \$35,000 waterworks bonds. 6-11

La., New Orleans—Bd. of Levee Comms. of Orleans Levee Dist., Chas. J. Donner, Sec., opens bids Sept. 1 for \$4,200,000 lake front improvement bonds.

La., Waverly—City, reported, votes Aug. 31 on \$45,000 waterworks bonds.

Miss., Biloxi—City, J. J. Kennedy, Mayor, voted \$85,000 bonds for purchasing grounds for American war veterans' home. 7-23

Miss., Natchez—Adams County Supvrs. called election for Sept. 15 on \$400,000 bonds to match like amount in Federal and state aid funds for paying Highway 61 through county.

Miss., Yazoo City—Yazoo City sold \$151,000, 6% street bonds to Delta National Bank, Yazoo City, for \$1290 premium.

S. C., Cayce—City, Mrs. T. D. Purvis, City Clk., advises election on \$36,000 waterworks system bonds declared void. 8-13

S. C., Orangeburg—Orangeburg County, S. J. McCoy, Chmn., Highway Comsn., opens bids Sept. 8 for \$50,000, not to exceed 6% road bonds.

Tenn., Maryville—City, W. H. Willard, City Judge, sell \$20,000 sewer bonds Aug. 31.

Tex., Beaumont—Jefferson County Comms. Court and Citizens' Good Roads Committee approved \$2,032,000 tentative county-wide highway bond issue program.

Tex., San Marcos—City Comsn. opens bids Sept. 2 for \$200,000 school bonds.

Va., Narrows—City, E. D. Coburn, Mayor, opens bids Sept. 1 for \$22,500, 5%, \$500 denom. refunding bonds.

Bond Issues Sold

Ala., Anniston—City, W. T. Morton, Jr., City Treas., sold \$21,500, 5½% improvement bonds to J. Mills Thornton, Montgomery, at \$21,609.65; accrued interest to be paid by purchaser. 8-16

Ala., Montgomery—City, reported, recently sold \$500,000, 4¾% tax anticipation notes to Marx & Co., Birmingham.

Ark., El Dorado—Union County, reported, sold \$109,674.40, 4¾% funding bonds to Bankers Trust Co., Little Rock.

Ark., Fayetteville—Washington County, reported, sold \$65,000, 6% funding bonds to M. W. Elkins & Co., Little Rock, at par.

Md., Annapolis—State, William S. Gordy, Jr., Comptroller of the Treasury, sold \$590,000, 4½%, \$1000 denom. general construction certificates of indebtedness known as loan of 1931 to Union Trust Co. of Maryland, Baltimore, at 107.065. 7-16

Ga., Ellijay—City, J. H. Penland, Mayor, reported, sold \$22,000, 5% water bonds to Robinson-Humphrey Co., Atlanta. 6-11

N. C., Greensboro—Guilford County sold \$230,000, 4¾%, \$1000 denom. bonds through Local Government Comsn., Raleigh, to Boatmen's National Co., St. Louis, Mo.; \$55,000 road and bridge bonds, \$365 premium; \$35,000 school bonds, \$230 premium; \$140,000 refunding bonds, \$890 premium. 8-6

N. C., Wilson—City sold \$325,000, 5½% bonds, through Local Government Comsn., Raleigh, to C. W. McNear Co., Chicago, Ill., at \$5366 premium. 8-6

Tenn., Jackson—Madison County sold \$100,000, 4½% gravel road bonds to Little-Wooten & Co., Jackson, and American National Co., Nashville, at par and accrued interest.

Tex., Beeville—Beeville Independent School Dist. recently sold \$125,000 bonds to Van H. Howard Co., San Antonio, at 98½.

Va., Clarendon—Arlington County sold \$52,000, 4½% school construction and refunding bonds to Fredrick E. Nolting & Co., Richmond, at 102.30.

New Financial Corporations

N. C., Greenville—Security Finance Corp., capital \$100,000, chartered; W. H. Bradsher, James R. Worsley.

Bank of Madisonville, W. N. Magill, Pres., and Monroe Bank & Trust Co., Lee R. Sloan, Pres., both Madisonville, Tenn., merged.

Farmers and Merchants' Bank, A. J. Stufflebaum, Pres., acquired Bank of Humansville, Ray Grove, Pres., and Citizens' State Bank, J. T. Crawford, Pres., all Humansville, Mo.

Virginia National Bank, G. C. Wright, Pres., and National Bank of Petersburg, Chas. E. Plummer, Pres., both Petersburg, Va., merged into First National Bank & Trust Co. of Petersburg.

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CINCINNATI OHIO

The way to get business

The Lacedaemonians did not ask, "How many are the enemy?" but rather, "Where are they?"

If there is one crowning virtue that should be coveted by American business today, it is that kind of courage that the hardened Spartans exercised in the face of seemingly overwhelming odds. The size of the opposition was not the problem, but what amount of strength was needed to overcome it.

The problems facing American industry are great but not insurmountable if proper measures are used. Every manufacturer should unceasingly put forth his best effort to get business and in turn purchase and consume what he needs. At best that is what business is. Every one who fails in that contributes just that much toward stagnation.

These are days when a great burden is placed on salesmen. If their firms are painting dark pictures and have withdrawn their advertising they become victims of the stories of gloom that are used as resistance against sales. Both the salesman and the house need the stimulation that advertising will give. Here is an effective weapon.

Broad, effective, courageous and adequate advertising will rout the gloom and create a favorable atmosphere and a good reception for the salesman. A more pronounced effort will get some of the business that is still being done in large volume.

MANUFACTURERS RECORD . . . Baltimore, Maryland



BOND ISSUES

BUILDINGS

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GOOD ROADS



PROPOSALS

Bids close September 3, 1931.

U. S. Engineer Office, 300 Customhouse, Baltimore, Md. Sealed proposals will be received here until 3 P. M., Eastern Standard Time, September 3, 1931, and then publicly opened for dredging in the entrance to the Craighill Section of channel leading to Baltimore, material estimated to measure approximately 1,050,600 cubic yards, scow measure.

Bids close August 31, 1931.

U. S. Engineer Office, Mobile, Ala.—Sealed bids, in duplicate, subject to the conditions contained in specifications, will be received until 11 o'clock A. M., August 31, 1931, and then publicly opened, for furnishing one direct connected diesel electric generating plant complete, as described in specifications, ready for installation. Further information upon application.

Bids close September 4, 1931.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., August 14, 1931.—SEALED BIDS in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., September 4, 1931, for furnishing all labor and materials and performing all work for furnishing and installing fixed permanent equipment for a cafeteria at the U. S. post office, etc., Baltimore, Md. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications may be obtained from the custodian at the building or at this office, in the discretion of the supervising architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 9, 1931.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., August 12, 1931.—SEALED BIDS in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., September 9, 1931, for furnishing all labor and materials and performing all work for the construction of the U. S. post office, etc., at Mt. Olive, N. C. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding three sets, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor, and provided a deposit of \$15.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 10, 1931.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 6, 1931.—SEALED BIDS, in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., September 10, 1931, for furnishing all labor and materials and performing all work for the construction (except elevator and dumbwaiter) of the U. S. post office, court house, etc., at Hartford, Conn. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding six sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of \$50.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 15, 1931.

U. S. Engineer Office, Jacksonville, Fla.—Sealed bids, in duplicate, will be received here until 12 noon, Sept. 15, 1931, and then opened, for furnishing all labor and materials and performing all work for constructing approximately 35,000 linear feet of levee and navigation channel, involving the removal from the navigation channel and placing in levee of approximately 2,179,000 cubic yards of material, dragline section, or 3,064,000 cubic yards, hydraulic section, including necessary drainage structures, between Disston Island Drainage District Pumphouse No. 1, near Moore Haven, Fla., at Station 300, and extending towards Clewiston, Fla., as far as available funds will permit. Further information on application.

Bids close September 11, 1931.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., August 14, 1931.—SEALED BIDS, in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m.; September 11, 1931, for furnishing all labor and materials and performing all work for the construction of the U. S. post office, etc., at Lumberton, N. C. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding three sets, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor, and provided a deposit of \$15 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 2, 1931.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 5, 1931.—SEALED BIDS, in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., September 2, 1931, for furnishing all labor and materials and performing all work for the construction of the U. S. post office, etc., at Rutherfordton, N. C. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding three sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of \$15.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 8, 1931.

TREASURY DEPARTMENT, office of the supervising architect, Washington, D. C., August 15, 1931.—SEALED BIDS, in duplicate, subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., September 8, 1931, for furnishing all labor and materials and performing all work for the foundations, etc., of the U. S. department of justice building, Washington, D. C. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding 3 sets, may be obtained at this office, in the discretion of the supervising architect, by any satisfactory general contractor, and provided a deposit of \$25.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 2, 1931.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 5, 1931.—SEALED BIDS in duplicate subject to the conditions contained herein will be publicly opened in this office at 2 p. m., September 2, 1931, for furnishing all labor and materials and performing all work for permanent sewers and work incident thereto at the U. S. immigration station, Baltimore, Md. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications may be obtained from the custodian at the building or at this office in the discretion of the supervising architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 16, 1931.

OFFICE OF THE ARCHITECT OF THE CAPITOL, Washington, D. C., August 12, 1931. SEALED BIDS will be opened in this office at 3 P. M., Eastern Standard Time, September 16, 1931, for construction of a New Wing along First Street connecting the two wings of the existing U. S. Senate Office Building, Washington, D. C. The work consists of the construction of a new building approximately 291 feet long by 71 feet wide, and five stories high, of the same general character and design as the existing building. On or after August 19, 1931, plans and specifications, not exceeding three sets, may be obtained at the Office of the Architect of the Capitol, in the discretion of said Architect, by any satisfactory general contractor. A deposit in the form of a check for \$50.00, made payable to the order of David Lynn, Architect of the Capitol, will be required for each set of plans and specifications to insure their return in good condition. DAVID LYNN, Architect of the Capitol.

Bids close September 17, 1931.

OFFICE OF THE ARCHITECT OF THE CAPITOL, Washington, D. C., August 15, 1931. SEALED BIDS will be opened in this office at 3 P. M., Eastern Standard Time, September 17, 1931, for the construction of a house, walks, installation of an underground sprinkler system, street lighting system, etc., in Squares Nos. 576 and 578 in connection with the United States Botanic Garden, Washington, D. C. On or after August 22, 1931, plans and specifications, not exceeding three sets, may be obtained at the Office of the Architect of the Capitol, in the discretion of said Architect, by any satisfactory general contractor. A deposit in the form of a check for \$25.00, made payable to the order of David Lynn, Architect of the Capitol, will be required for each set of plans and specifications to insure their return in good condition. DAVID LYNN, Architect of the Capitol.

Bids close August 27, 1931.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., August 5, 1931.—SEALED BIDS, in duplicate subject to the conditions contained herein, will be publicly opened in this office at 3 p. m., August 27, 1931, for furnishing all labor and materials and performing all work for the excavation and foundations of the U. S. department of labor and interstate commerce commission building, including the preliminary excavation for the connecting wing, at Washington, D. C. The prevailing rate of wage shall be paid all laborers and mechanics employed on the project as provided in the Act of March 3, 1931 (Public No. 798). Drawings and specifications, not exceeding three sets, may be obtained at this office in the discretion of the supervising architect by any satisfactory general contractor, and provided a deposit of \$25.00 is made for each set to assure its prompt return. Checks offered as deposits must be made payable to the order of the Treasurer of the United States. Cash deposits will not be accepted. JAS. A. WETMORE, Acting Supervising Architect.

Bids close September 2, 1931.

Bridge

DEPARTMENT OF PUBLIC WORKS BUREAU OF HIGHWAYS

Baltimore, Md., August 12, 1931.

Sealed bids or proposals, in duplicate, addressed to the Board of Awards and marked "Bids for the construction of Lafayette Avenue Bridge over the Pennsylvania Railroad, in the City of Baltimore," will be received at the office of the City Register, City Hall, Baltimore, Maryland, until Wednesday, September 2nd, 1931, at 11 o'clock A. M., Eastern Standard Time, at which time they will be publicly opened and read by the Board of Awards.

Complete sets of plans, specifications, proposals, agreements and bond forms may be obtained at the Bureau of Highways, Room 303, Municipal Office Building, Baltimore, Maryland, upon deposit of Fifteen (\$15.00) Dollars, which deposit will not be refunded.

A certified check of the bidder, drawn upon a solvent clearing house bank, made payable to the Mayor and City Council of Baltimore, for the sum of Five Thousand (\$5,000.00) Dollars, will be required with each bid.

The Board of Awards reserves the right to reject any or all bids and to waive technical defects, if in its judgment the interests of the Mayor and City Council may so require.

The contract to be entered into in accordance with the terms and provisions hereof is to be between the bidder and The Pennsylvania Railroad Company and is not to be considered as creating any contractual relation between the bidder and the Mayor and City Council of Baltimore.

Bond in the amount of the contract price will be required of the successful bidder.

NATHAN L. SMITH,
Highways Engineer.

Approved:
HOWARD W. JACKSON,
Mayor.

Bids close September 15, 1931.

Railroad and Highway Bridge

STATE OF LOUISIANA AND CITY OF NEW ORLEANS

New Orleans, La., July 21, 1931.

Sealed proposals will be received by the State of Louisiana, acting through the State Advisory Board, represented by its Chairman, Huey P. Long, and the City of New Orleans, acting through the Public Belt Railroad Commission, represented by its President, T. Semmes Walmsley, at the Council Chamber in the City Hall, New Orleans, La., until two P. M. (Central Standard Time), TUESDAY, SEPTEMBER 15, 1931, for the construction of combined railroad and highway bridge across the Mississippi River above New Orleans.

The approximate quantities of work to be performed under four contracts are given below:

Contract No. 3 — Substructure — Main Bridge.
Borings 3075 lin. ft.
Caisson Foundations 133,700 cu. yds.
Concrete Footings.
Pedestals and Shafts 45,000 cu. yds.
Granite Facing 2200 cu. yds.
Excavation other than Caisson 14,900 cu. yds.

Gravel Fill 1150 cu. yds.
Timber Piles 124,500 lin. ft.
Reinforcing Steel 1,000,000 lbs.
Mattress Protection 537,500 sq. ft.
Contract No. 4 — Superstructure — Main Bridge.

Structural Metalwork 39,400,000 lbs.
Heat Treated Eyebars 2,800,000 lbs.
Railway Deck Timbers Treated 550 MBM.
Concrete Roadway Slabs 3270 cu. yds.
Reinforcing Steel 225,000 lbs.
Roadway Steel Reinforcing Trusses 183,000 lin. ft.

Contract No. 5 — Substructure Approaches.
Excavation for Footings 32,400 cu. yds.
Concrete in Pedestals, Footings and Abutments 24,700 cu. yds.

Reinforcing Steel 1,130,000 lbs.
Timber Piles 60' long 1,032,200 lin. ft.
Highway Embankments 25,000 cu. yds.
Bituminous Roadway Surface 8000 sq. yds.
Reinforced Concrete Pipe, 12" diam., 750 lin. ft.

Reinforced Concrete Pipe, 24" diam., 750 lin. ft.

Steel Driving Shoes for piles 5000 shoes.

Contract No. 6 — Superstructure Approaches.

Structural Metalwork 78,000,000 lbs.

Railway Deck Timbers Treated 3500 MBM.

Concrete Roadway Slabs 4860 cu. yds.

Reinforcing Steel 336,000 lbs.

Roadway Steel Reinforcing Trusses 275,000 lin. ft.

Copies of the contract drawings, contract, specifications, proposals and bond may be secured from the Louisiana Highway Commission at Baton Rouge, La., or the Public Belt Railroad Commission, Municipal Building, New Orleans, La., or Modjeski, Masters and Chase, 121 East 38th Street, New York, N. Y. A deposit of fifty dollars (\$50.00) will be required to be made for each set of plans, forty dollars (\$40.00) of which will be refunded upon the return of the plans in good condition.

In addition to the surety's consent there will be required to be deposited with each bid submitted certified check in the amount shown below:

Contract No. 3 — \$100,000.00

Contract No. 4 — \$100,000.00

Contract No. 5 — \$25,000.00

Contract No. 6 — \$100,000.00

The State and City reserve the right to reject any or all bids, or to accept any bids which will be for the best interests of the State and the City.

STATE OF LOUISIANA,
Acting Through
STATE ADVISORY BOARD
By HUEY P. LONG, Chairman.
CITY OF NEW ORLEANS,
Acting Through
PUBLIC BELT RAILROAD COMMISSION
By T. SEMMES WALMSLEY, President.

Bids close August 23, 1931.

Maryland Highway Work

DEPARTMENT OF PUBLIC WORKS STATE OF MARYLAND STATE ROADS COMMISSION

NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for building one section of State Highway as follows:
Dorchester County, Contract No. D-83-14—
One section of State Highway from the end of contract No. D-80 near Hills Point

toward Hudson, a distance of 1.33 miles (concrete)

will be received by the State Roads Commission at its offices, Federal Reserve Bank Building, Calvert and Lexington Streets, Baltimore, Maryland, until 12 M. on the 25th day of August, 1931, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans, will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check, payable to the State Roads Commission of Maryland, as required by Sec. 6, Chapter 539, Acts of 1931, of the amount as set forth in the proposal form.

The successful bidder will be required to give bond and comply with the Acts of the General Assembly of Maryland respecting contracts.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 11th day of August, 1931.

G. CLINTON UHL, Chairman.
L. H. STEUART, Secretary.

Bids close August 26, 1931.

Alterations to Hydro-Electric Plant

Martinsville, Va.

SEALED PROPOSALS will be received at the office of the Clerk of the Council, at the City Hall, in the City of Martinsville, Virginia, and publicly opened at 12 o'clock, noon, on August 26th, 1931, for additions and changes to the Municipal Hydro-Electric Plant of said city.

Following approximate quantities are involved:

- | | |
|-------------------------------|---------------|
| 1. Earth Excavation | 200 Cu. Yds. |
| 2. Rock Excavation | 975 Cu. Yds. |
| 3. Removing Old Masonry | 201 Cu. Yds. |
| 4. Rubble Masonry | 120 Cu. Yds. |
| 5. Concrete Masonry | |
| Class A, Type 1..... | 428 Cu. Yds. |
| 6. Concrete Masonry— | |
| Class A, Type 2..... | 703 Cu. Yds. |
| 7. Reinforcing Steel and | |
| Dowels | 80,000 Lbs. |
| 8. Power House Super- | |
| structure | Lump Sum—One |
| 9. Receiving, Hauling and | |
| Placing Miscellaneous | |
| materials | 35,000 Lbs. |
| 10. Grading Roadway and | |
| Construction of Fills | |
| (1) Common Excava- | |
| tion | 300 Cu. Yds. |
| (2) Rock Excavation | |
| | 500 Cu. Yds. |
| 11. Excavation in Tailwater | |
| Channel | Force Account |

The above quantities are subject to increase or diminution at the option of the city.

Plans and specifications are on file at Superintendent's Office, Martinsville, Va., and Saville & Williamson, Inc., Consulting Engineers, 603 Electric Building, Richmond, Va.

Certified check for \$1000 is to accompany bid.

The right is reserved by the City of Martinsville to reject any or all bids.

Signed A. S. GRAVELY,
Clerk of Council.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS, WATER POWER, MISCELLANEOUS PROPERTIES

FOR SALE—10,000 acres prospective oil land near producing wells in Western Louisiana. Land is well blocked and is worth \$10.00 per acre for farming purposes. Price \$3.00 per acre. J. C. HARRISON & CO., Clarksville, Ark.

TIMBER AND TIMBER LANDS

FOR SALE—441,000 feet (estimate) of timber, majority original virgin, Appalachian, White Oak and Yellow Poplar. 2½ miles from U. S. Route No. 23. Call or write CHANT BRANHAM, P. M., Pound, Va.

TIMBER AND TIMBER LANDS

VIRGIN PINE TIMBER LANDS
Will sell at sacrifice 1000 acres heavy virgin pine timber lands at \$8 acre; cash only; no trades; in normal times ready market for timber at good prices.
S. W. DUKE, Mena, Ark.

SOUTHERN PLANTATION

GET IN TOUCH with me if you want to own one, if not the best, 2100 acre Southern plantations in the South; near Montgomery, Alabama. Only \$25 per acre. Terms.
O. D. STEWART, Route 6, Boaz, Ala.

SOUTHERN ESTATE

IN SHENANDOAH VALLEY
GENTLEMAN'S ESTATE, 635 acres, all level, smooth, highly productive, spring watered. Joins National Park with Scenic Highway, near U. S. Remount Station. Surrounded by fine homes; 200 acres old blue grass sod, 30 acres orchard in bearing, 50 acres virgin oak timber, 8 miles hog tight fence, Colonial brick residence, 9 rooms, 11 room residence with all modern imp. on highway, 3 tenant houses, large barns, running spring water in all buildings. Price, \$45,000; improvements alone worth \$75,000.
W. T. BIRMINGHAM,
Winchester, Va.

BUSINESS OPPORTUNITIES

LONG TERM LOANS, large amounts, made on industrial, mercantile, sawmill properties. THOS. W. GILMER, Attorney, Bay Minette, Alabama.

WANTED—A PARTY to finance the manufacturing and distribution of liquid Aspirin, best preventative for influenza. Address No. 9119, care of Manufacturers Record, Baltimore, Md.

MANUFACTURERS—Write for our FREE Classification Sheets of inventions for sale, covering 135 main subjects, and in one or more of which you will doubtless be interested. ADAM FISHER MFG. CO., 578 Enright, St. Louis, Mo.

HAVE DISCOVERED evidence of large deposits of rock salt on own property. This is near high calcium limestone. Want to hear from interested chemical companies who would prospect on agreeable terms. Address No. 9122, Manufacturers Record.

CORPORATIONS ORGANIZED—Incorporate your business under Delaware laws. Many advantages. Low cost. Quick service. Meetings can be held anywhere. Send 25c for latest corporation laws. Write Dept. 34, Corporation Fiscal Co., Wilmington, Del.

FACTORY OPERATING in the State of Georgia needs services of a young man and additional capital to the extent of \$25,000 to \$50,000. Investment will be safe and profitable. An unusually good proposition will be submitted to a person with money and brains. References will be given and expected. Address No. 9129, care of Manufacturers Record, Baltimore, Md.

MOVING AHEAD

Parkersburg has worked out of the depression. Diversified industry did it. Locate your factory here at the gateway to the Central West and South.

BOARD OF COMMERCE.
Parkersburg, West Virginia.

MAN WANTED—A Northern tapestry and drapery manufacturer opened a branch plant here, leased a building and equipped it with fifty-eight Jacquard Looms, and other machinery. The head of the firm died. The plant was closed. We have purchased the equipment, it is set up ready to run, individual motor drives. Here's an opportunity for a man who knows this business and can manage it, to get in on the ground floor. All that's necessary is a few thousand dollars and show us he's the right man.

J. W. ANDERSON CO., INC.,
Rock Hill, S. C.

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FOR SALE OR LEASE, well equipped furniture factory located in the Southeast—manufacturing bed room and dining room furniture. Raw materials secured locally. Territory embraces the southeast with most favorable freight rates. MACON LUMBER & MFG. CO., Macon, Ga.

FOR SALE—Iron Works in Kansas, composed of Structural Steel Shop, Foundry, Machine and Sheet Iron Shop; established in 1902. Owners retiring. Annual business \$350,000 to \$400,000, net assets \$275,000. Will sell at sacrifice. Address No. 9126, care of Manufacturers Record, Baltimore, Md.

COTTON MILL

For Quick Sale
4 story, standard brick building.
28 tenant houses.
2 warehouses, one story brick.
8,512 spindles.
262 looms, 32", 36" and 40".
Powered with 360 H.P., new Diesel oil engine. Mill has been operation since 1889. For further information, write No. 9127, care Manufacturers Record, Baltimore, Md.

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TWO AND ONE-QUARTER MILES railroad frontage industrial sites for sale at Baton Rouge. Southern Land and Investment Company, Baton Rouge, La.

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PATENTS—Booklet free. Highest references. Best results. Promptness assured. WATSON E. COLEMAN, Patent Lawyer, 724 Ninth St., N. W., Washington, D. C.

PAUL B. BATON, Patent Attorney
1408-R Johnston Bldg., Charlotte, N. C.
314 McLachlen Building, Washington, D. C.
417 Wachovia Bldg., Winston-Salem, N. C.

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Sterling Buck, over 23 years Registered Patent Attorney. Prompt and thorough services. Suite M 629 F, Washington, D. C.

SEYMOUR & BRIGHT, Registered Patent Attorneys. Established 1876. PATENTS, TRADEMARKS, COPYRIGHTS. Prompt and thorough service. Suite 892, National Press Building, Washington, D. C.

AGENCIES WANTED

CONTRACTORS—MUNICIPAL EQUIPMENT AND SUPPLIES. K. C. Eller, Equipment Dealer, 901 Central Union Building, Columbia, S. C., desires to communicate with manufacturers of contractors and municipal equipment and supplies wanting representation in South Carolina.

REPRESENTATIVES WANTED

MEN WANTED who sell fire appliances, to handle a Gasoline Non-Explosive safety valve for use on all gasoline tanks and a line of one and five gallon Non-Explosive gasoline cans.

EMERSON ENGINEERING CORP.,
Alexandria, Va.

SITUATIONS WANTED

POSITION WANTED

Carpenter, foreman, capable reading and executing blueprints. Can organize and handle labor. Reference. Address No. 9128, care Manufacturers Record.

SHOVEL OPERATOR—Steady, reliable man who has worked 30 years on all makes and types of steam shovels. R. R. type or Whirley. At all classes of excavation, including grading for railroads, highways, quarry, streets, etc.; good in rock of any class. Location no object. Wages to depend on what ability is shown.

J. J. LYONS, Travelers Rest, S. C.

MEN WANTED

IF YOU ARE OPEN to overtures for new connection and qualified for a salary between \$2500 and \$25,000, your response to this announcement is invited. The undersigned provides a thoroughly organized service of recognized standards and reputation, through which preliminaries are negotiated confidentially for positions of the caliber indicated. The procedure is individualized to each client's personal requirements, your identity covered and present position protected. Established twenty-one years. Send only name and address for details.

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WANTED
Market to mine and ship Bauxite, Ochre, Bentonite, Fullers Earth.
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14"x6" LEBLOND LATHE, Quick change	\$300.00
36"x18" Field Lathe	700.00
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No. 1½ Valley City Milling Machine	300.00
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23" Rockford Drill Press	125.00

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HOLLAND'S FAMOUS RICHLY-FLOWERING DARWIN TULIPS

Our Darwin tulips with extra long stems are remarkable for their long flowering period. Enormously large flowers on strong stems of about three feet in length. Magnificent for beds, edges and for cultivation in pots.

BUY TULIPS NOW DIRECT FROM THE DUTCH GROWER.

Excellent Darwin tulips in 5 colours:

pink - red - violet - heliotrope -
yellow

500

100 of each colour, and each colour packed separately
POST and DUTY FREE delivered at your home, for only

\$10.-

Please remit amount per money order:

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SUPPLIES



TREMENDOUS BARGAINS

Roof Trusses — Boilers and Miscellaneous Power Equipment

Roof Trusses

From the following buildings:

Garage	61 x 180
Machine Shop	115 x 425
(With 75-ton crane runway)	
Gauge House	24 x 80
Repair Shop	60 x 100
Power House	45 x 180
Lavatory	25 x 50
Office and Storehouse	60 x 210

All very carefully dismantled

Fuel Oil Storage Tank (Steel)

50 ft. dia.—Cap. 500,000 gal.

Boilers, etc.

- 9 Steam Boilers, 500 h.p. (each)
- 3 Westinghouse—6 are B & W
- 9 Automatic stokers, 7 Westinghouse and 2 Taylor
- 2 Terry Steam Turbines
- 2 Steel feed water tanks

In use only three years

In first-class condition

Steel Water Tower

12 ft. dia.—Cap. 135,000 gal.

Pumps

- 1 Oldrich Triplex Pump 7 x 9
- 2 Oldrich Triplex Pumps 9 x 10
- 1 Blake Pump 8 1/4 x 11 1/2 x 8
- Capacity 1000 G.P.M.
- 3 Steam Pumps

Good Condition

Miscellaneous

Pipe all sizes 1/4" to 30"

Cast pipe 6"—4000 ft.

Valves all sizes

- 1 Bliss No. 2 Punch Press, 60 tons
- 1 Bliss No. 2 Double Acting Crank

Plans furnished for re-erection—Can ship by rail or water

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WASHINGTON, D. C.

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GENERATING UNIT

1—100 kva., 220 v., 60 cy., 2 or 3 ph., Skinner side crank engine, direct connected to a Westinghouse generator; good condition; bargain, to close out account.

THEO. H. HADLEY

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Equipment.

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Air Compressor, 2678'—Ing. Rand PRE. —2 synch. motor 431 HP.
Air Compressor, 550'—Bury duplex
Air Compressor, 242'—14x9x8 Bury belted.
Ball Mills, 4½'x16" Hardinge conical
Ball Mill, 6'x22" Hardinge conical
Balls, 3 tons new chrome steel 3" to 5" dia.
Bin, 65 ton Johnson 4 hopper industrial bin
Boiler 90 HP. HRT—125 lbs. Non code
Boiler, 150 HP. Scotch dry back 130 lbs.
Boiler, 60 HP. Loco. type 125 lbs. Penn. Boiler Wks. Non-code
Boiler, 50 HP. Scotch Marine type on skids
Boiler, 175 HP. Scotch dry back new tubes
Boiler Scotch 84" dia. corrugated furnace
Boiler, 80 HP. return tubular portable
Boiler, 320 HP. Heine water tube 180 lbs.
Boilers, 2—404 HP. Springfield water tube 225 lbs. ASME
Boilers, 3—25 HP. new vertical ASME
Boilers, 2—200 HP. HRT—150 lbs. non-code steel casings
Boilers, 2—250 HP. crossdrum Marine type water tube 200 lbs.
Brick Machine, No. 999 Raymond
Bulldozer, U 29 Williams & White 50 ton 36" stroke
Cableway, Flory 950' with hoist boiler and towers
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Cars, 15 dryer, brick, 30" gauge, 68" long 54" wide
Cars, 200—1½ ton 36 gauge mine
Cars, 60—Koppel 30" gauge 60 cu. ft. all steel muck.
Classifier, Dorr—late model bowl type
Converter, rotary 300 KW, 125-250 V. 3 wire, 200 amp. 60 cycle
Conveyor, portable belt
Crusher, 42"x36" Farrell jaw
Crusher, 18"x36" Traylor jaw
Crushing Rolls, McLanahan 30" dia.
Cylinder, brick hardening cylinder 6'x80"—150 lbs. new
Derrick, Terry steel guy 75' boom, 85' mast, 15' jib extension.
Dry Pan, 10' Raymond
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Engine, 15x18 Erie City, 4 valve, automatic.
Filter, Shriver 18" with 24 plates.
Generating Unit, 240 KVA 4 valve, 200 RPM. 3/60/2300
Generating Unit, 125 KW Harrisburg 4 valve G.E. 3/60/2300
Generator, 150 K.W. G.E. 3/60/2300/480/240-600 RPM.
Generator Unit, 50 KVA—2400/480/240 Wsbe; Erie Ball 11x12 engine
Generator Unit, 40 KW G.E. 3/60/600 Unaflo engine
Generator Unit, 50 K.W. 480 v. 3/60 Skinner 10x12.
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Hack Saws, 2 Marvel draw cut M.D. No. 2.
Hammer, No. 2-B, Nazel air forging
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Locomotive, 10 ton gas standard gauge
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Motor, 300 HP. G.E. synch. 600 RPM. 3/60
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Oil Engine Unit, 60 KVA full Diesel.
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Pipe, 200'—24" welded steel
Pipe, 170 tons 12" C.I. bell and spigot Class B
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Rolls, Hilles & Jones, 77" dia. belt drive.
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Scraper, 1½ yd. Sauerman complete nearly new
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Tanks, 7-10' dia. 11' high open top 5/16 6463 gal. 6218 lbs.
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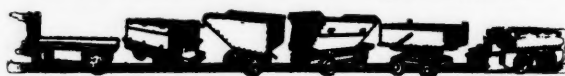
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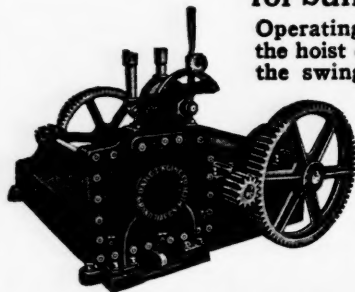
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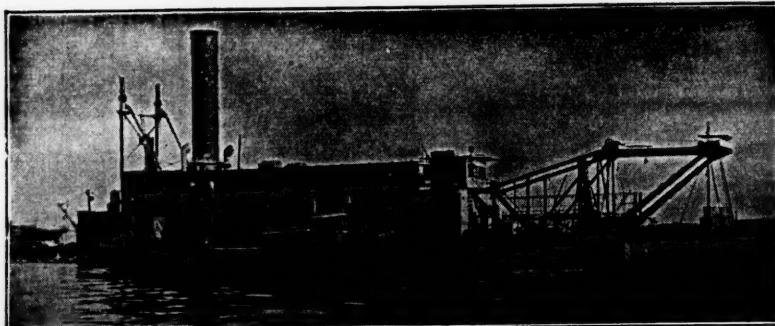
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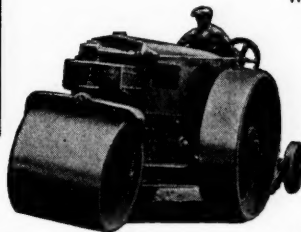


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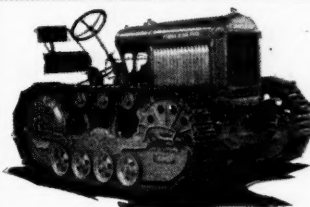


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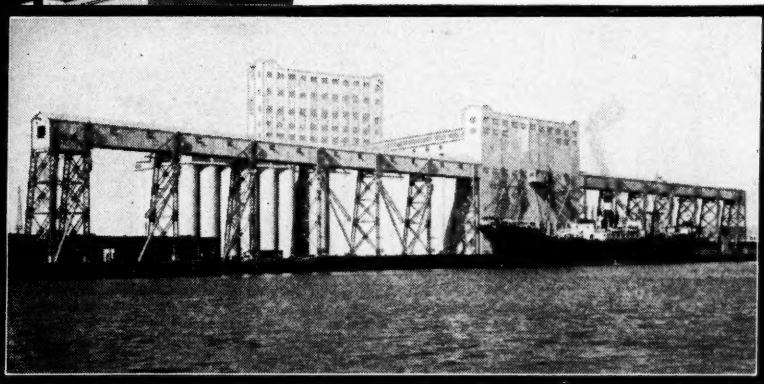
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floor lamp . . . hand-set tele-
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every room. Club meals, Garage Serv-
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and Bath \$3.00 to \$4.50 ● ●

Now for NEW Speed Records..



Million Dollar Santa Fe
Addition, July, 1931



New! Elevator "B" emptied
500 cars in one day. Can load
three ships at once.

GALVESTON is judged America's Port of Quickest Dispatch. Yet new equipment is being added to further speed up deliveries. A \$3,000,000 grain elevator was completed in May. Another railroad, faster coaling equipment, more cotton concentration facilities and a new Santa Fe building . . . these are 1931 additions to an already well-equipped seaport.

Galveston sets high speed records. Freight cars are unloaded on day of arrival! Forty minutes from wharves to deep sea. Grain vessels enter, load, clear and are at sea in six hours! A sulphur cargo of 10,050 tons was put aboard in two days. Cotton loading records stand unchallenged. Now added

facilities make possible still greater speed in handling bulk and other commodities: rice, flour, packaged goods, packing house products, machinery, etc.

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GAS HEAT FOR SOFT METAL MELTING

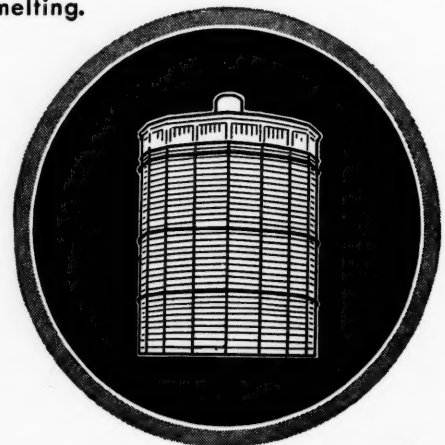


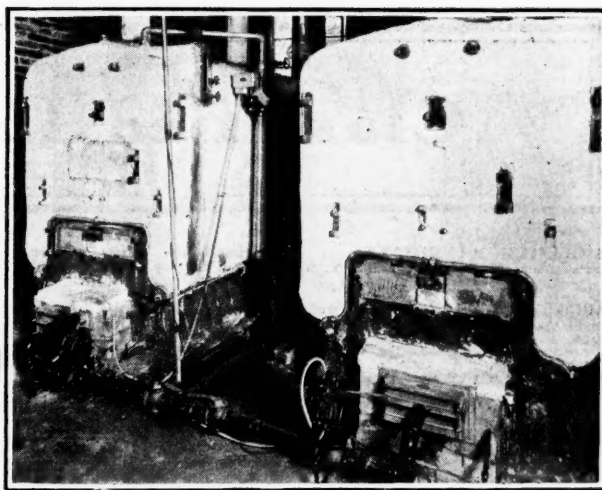
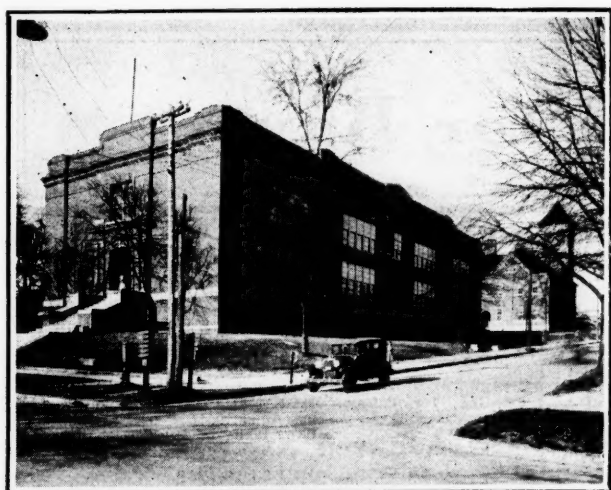
GAS provides the best possible heat for soft metal melting operations: it quickly attains the proper thermal head, and—what is at least equally important—it maintains it with a tolerance of but few degrees. The new book "Gas Heat in Industry" contains definite information about the application of gas to soft metal melting. You should have a copy.

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WHEREVER HEAT IS NEEDED**





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Seventy-five per cent of the gas used in the United States is natural gas. It is available in all but eleven states of the Union. The system of the Southern Natural Gas Corporation serves communities in Mississippi, Alabama, and Georgia.

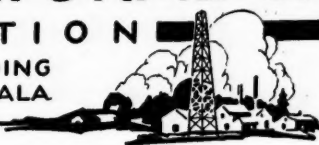


*For detailed information on the use of natural gas
either for domestic or industrial use, write to*

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Virginia Bridge & Iron Co., Roanoke, Va.
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Timken Roller Bearing Co., Canton, Ohio.

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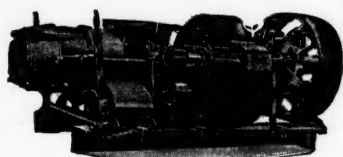
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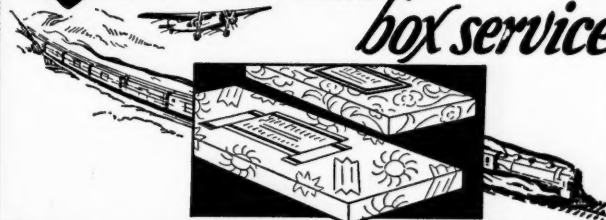
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Thew Shovel Co., The, Lorain, Ohio.

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—(Crawler.)
Northwest Engineering Co., Chicago, Ill.
Ohio Power Shovel Co., Lima, Ohio.
Thew Shovel Co., The, Lorain, Ohio.

—(Crawling Tractor.)
Northwest Engineering Co., Chicago, Ill.
Ohio Power Shovel Co., Lima, Ohio.
Thew Shovel Co., The, Lorain, Ohio.

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Northwest Engineering Co., Chicago, Ill.
Ohio Power Shovel Co., Lima, Ohio.
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Universal Crane Co., Lorain, Ohio.

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Trackson Co., Milwaukee, Wis.

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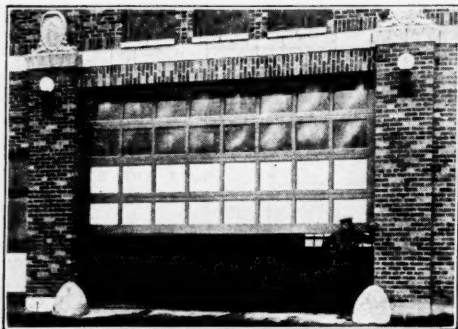
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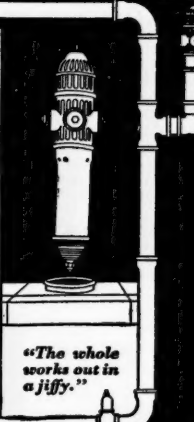
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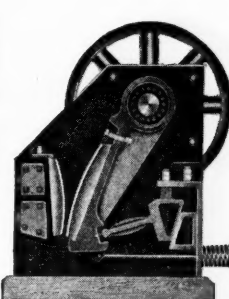
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LOADING and UNLOADING MACHINERY (Portable.)
Barber-Greene Co., Aurora, Ill.
Northwest Engineering Co., Chicago, Ill.

LOCOMOTIVES (Compressed Air.)
Porter Co., H. K., Pittsburgh, Pa.
—(Fireless Stored Steam).
Porter Co., H. K., Pittsburgh, Pa.
—(Gasoline).
Porter Co., H. K., Pittsburgh, Pa.
Whitcomb Locomotive Co., Rochelle, Ill.
—(Industrial).
Porter Co., H. K., Pittsburgh, Pa.
Southern Iron & Equipment Co., Atlanta.
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—(Mining).
Porter Co., H. K., Pittsburgh, Pa.
Whitcomb Locomotive Co., Rochelle, Ill.
—(Railway).
Porter Co., H. K., Pittsburgh, Pa.
Southern Iron & Equipment Co., Atlanta.
Whitcomb Locomotive Co., Rochelle, Ill.

LUBRICANTS.
Dixon Crucible Co., Jos., Jersey City, N.J.
Gulf Refining Co., Pittsburgh, Pa.

LUBRICATORS (Force Feed.)
Lunkenheimer Co., The, Cincinnati, O.

LUMBER (Ceiling, Flooring, Siding.)
Jackson Lumber Co., Lockhart, Ala.

—(Creosoted.)
Amer. Creosote Wks., Inc., New Orleans.
Amer. Creosoting Co., Inc., Louisville, Ky.
Atlantic Creosoting Co., Norfolk, Va.
Ayer & Lord Tie Co., Inc., Chicago.
Eppinger & Russell Co., New York, N. Y.
Gulf States Creos. Co., Hattiesburg, Miss.
—(Hardwoods, Cypress, etc.).
Reynolds Bros. Lbr. Co., Albany, Ga.
—(Heavy Construction, Pitch, Pine, etc.).
Reynolds Bros. Lbr. Co., Albany, Ga.

—(Zinc Meta Arsenite Treated.)
Curtin-Howe Corp., New York City.

MACHINERY (Special.)
Bliss Co., E. W., Brooklyn, N. Y.
Earle Gear & Machine Co., Phila., Pa.
General Machine Works, York, Pa.
Gerdinz Bros., Cincinnati, O.

—(Used.)
Adams Mch. Co., T. G., Savannah, Ga.
Cincinnati Mch. & Supply Co., Cincinnati, O.

Electric Service Co., Cincinnati, Ohio.
Machinery Record, Richmond, Va.
Marine Metal & Supply Co., New York.
O'Brien Machinery Co., The, Phila., Pa.
Partridge, Arthur S., St. Louis, Mo.
Randle Machinery Co., The, Cincinnati, O.
Zelnicke Supply Co., W. A., St. Louis.

MACHINE TOOLS.
Byerson & Son, Inc., Jos. T., St. Louis and New York.
Sebastian Lathe Co., Cincinnati, Ohio.

—(Used.)
Delta Equipment Co., Philadelphia, Pa.
O'Brien Machinery Co., Philadelphia, Pa.

MAIL CHUTES.
Cutler Mail Chute Co., Rochester, N. Y.

MARBLE (Producers and Manufacturers.)
Georgia Marble Co., The, Tate, Ga.

MATERIAL ELEVATORS.
National Equipment Corp. (Insley, C. H. & E.), Milwaukee, Wis.

METAL-Cutting Machinery.
Earle Gear & Machine Co., Phila., Pa.
—(Working Machinery).
Bliss Co., E. W., Brooklyn, N. Y.
Byerson & Son, Inc., Jos. T., St. Louis and New York.

MILL MACHINERY and SUPPLIES.
Lombard Iron Works & Supply Co., Augusta, Ga.

MIXERS.
National Equipment Corp. (Koehring, T. L. Smith, Kwik-Mix), Milwaukee, Wis.
—(Asphalt).
Erie Machine Shops, Erie, Pa.
—(Hot).
Koehring Co., Milwaukee, Wis.
—(Mortar).
Chain Belt Co., Milwaukee, Wis.
Jaeger Machine Co., Columbus, Ohio.
—(Plaster).
Chain Belt Co., Milwaukee, Wis.
Dunning & Boschert Press Co., Syracuse, N. Y.
Jaeger Machine Co., Columbus, Ohio.

MOTORS (Electric.)
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Armstrong & Bro. Co., E. S. Atlanta, Ga.
Fairbanks, Morse & Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Western Electric Co., New York City.

MOTOR TRUCKS.
International Harvester Co. of America, Inc., Chicago, Ill.

NAILS (Cut.)
Reading Iron Co., Reading, Pa.
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American Steel & Wire Co., Balto., Md.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

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(Offering Industrial and Commercial Opportunities.)
Southern Natural Gas Corp., Birmingham.

NURSEBYMEN.
Howard-Hickory Co., Hickory, N. C.

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Oliver Iron & Steel Corp., Pittsburgh, Pa.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.

OIL (Fuel and Gas.)
Gulf Refining Co., Pittsburgh, Pa.
—(Cups).
Lunkenheimer Co., The, Cincinnati, O.

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Georgia Iron Works, Augusta, Ga.

ORNAMENTAL BRONZE WORK.
Heath Co., J. S., Waukegan, Ill.
Michaels Art Bronze Co., Covington, Ky.
—(Iron Work).
Austin Bros. Bridge Co., Atlanta, Ga.
Roanoke Iron & Bridge Wks., Roanoke, Va.
Snead Architectural Iron Works, Louisville, Ky.
Southern Engineering Co., Charlotte, N.C.

PAINT (Metal Surfaces.)
Dixon Crucible Co., Jos., Jersey City, N. J.

—(Mill White, For Interior).
Soaneborn Sons, Inc., L., New York.
—(Preservative).
Cabot, Inc., Samuel, Boston, Mass.

PANELBOARDS.
Adam Electric Co., Frank, St. Louis.

PARTITIONS (Sectionfold, Rolling, Wood.)
Wilson Corp., The, J. G., New York.

PATENT ATTORNEYS.
Buck, Sterling P., Washington, D. C.
Coleman, Watson E., Washington, D. C.
Eaton, Paul B., Charlotte, N. C.
Sammet, Edward C., Washington, D. C.
Seymour & Bright, Washington, D. C.

PATTERNS (Drawing, etc.)
Haas Pattern Co., A. W., Atlanta, Ga.

PAVING BLOCKS (Creosoted Wood.)
American Creosote Works, New Orleans.

—(Brick).
National Paving Brick Assn., Washington, D. C.

—(Mixers).
National Equipment Corp. (Koehring, T. L. Smith), Milwaukee, Wis.

—(Plant (Asphalt).)
Simplicity System Co., Chattanooga, Tenn.

PENSTOCKS.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Chicago Bridge & Iron Wks., Birmingham.
Newport News Shipbuilding & Dry Dock Co., Newport News, Va.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Smith Co., S. Morgan, York, Pa.

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Chicago Perforating Co., Chicago, Ill.
Erdie Perforating Co., Rochester, N. Y.
Harrington & King Perf. Co., Chicago.
Hendrick Mfg. Co., Carbondale, Pa.
Manhattan Perforated Metal Co., Inc., Long Island City, N. Y.
Mundt & Sons, Charles, Jersey City, N. J.

PETROLEUM REFINERS.
Gulf Refining Co., Pittsburgh, Pa.

PHOSPHATE ACID.
Davison Chemical Co., Baltimore, Md.

PIG-IRON.
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

PILING (Creosoted.)
Amer. Creosote Wks., Inc., New Orleans.
Amer. Creosoting Co., Inc., Louisville.
Atlantic Creosoting Co., Norfolk, Va.
Ayer & Lord Tie Co., Inc., Chicago.

—(Steel Sheet).
Carnegie Steel Co., Pittsburgh, Pa.
Hyman-Michaels Co., Chicago, Ill.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Zelnicke Supply Co., W. A., St. Louis.

—(Yellow Pine).
Jackson Lumber Co., Lockhart, Ala.

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Goldens' Fdry. & Mch. Co., Columbus, Ga.

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Albert & Davidson Pipe Corp., Brooklyn, N. Y.
Albert Pipe Sup. Co., Inc., Brooklyn, N. Y.
Birmingham Boiler & Engr. Co., Birmingham, Ala.
Central Pipe & Supply Co., Charleston, W. Va.
Greenspan's Sons Iron & Steel Co., St. Louis, Mo.
Hudson Pipe & Supply Co., Bayonne, N.J.
Maryland Pipe & Steel Corp., Baltimore, Md.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Power Piping Co., Pittsburgh, Pa.

—(Cast Iron).
Amer. Cast Iron Pipe Co., Birmingham.
Cast Iron Pipe Research Assn., Chicago.
Glamorgan Pipe & Fdry. Co., Lynchburg, Va.
National Cast Iron Pipe Co., Birmingham, Ala.
U. S. Pipe & Fdry. Co., Burlington, N.J.

—(Dredge).
Lancaster Iron Works, Inc., Lancaster, Pa.

—(Hammer-Welded).
National Tube Co., Pittsburgh, Pa.
—(Iron and Steel).
American Rolling Mill Co., Middletown.
—(Second-Hand).
Albert & Davidson Pipe Corp., Brooklyn, N. Y.
Albert Pipe Sup. Co., Inc., Brooklyn, N. Y.
Central Pipe & Sup. Co., Charleston, W. Va.
Greenpoint Iron & Pipe Co., Inc., Brooklyn, N. Y.
Hudson Pipe & Supply Co., Bayonne, N. J.
Marine Metal & Supply Co., New York.
Maryland Pipe & Steel Corp., Baltimore, Md.

—(Spiral Riveted).
Taylor Forge & Pipe Wks., Chicago, Ill.

—(Spiral Welded).
American Rolling Mill Co., Middletown.

—(Steel).
Bethlehem Steel Co., Bethlehem, Pa.
Chicago Bridge & Iron Wks., Birmingham.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Power Piping Co., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngstown, Ohio.

—(Steel, Large Diameter).
Alco Products, Inc., New York, N. Y.

—(Wrought Iron).
Reading Iron Co., Reading, Pa.
—(Covering (Cork).)
United Cork Companies, Lyndhurst, N. J.

—(Fittings).
Amer. Cast Iron Pipe Co., Birmingham.

—(Machinery (Concrete).)
Quinn Wire & Iron Works, Boone, Iowa.

—(Unions and Joints).
Dart Mfg. Co., E. M., Providence, R. I.

—(Systems (Industrial).)
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Pittsburgh Piping & Equip. Co., Pittsburgh, Pa.
Power Piping Co., Pittsburgh, Pa.
Southern Automatic Sprinkler Company, Birmingham.

PLATES (Steel.)
American Rolling Mill Co., Middletown.
Bethlehem Steel Co., Bethlehem, Pa.
Carnegie Steel Co., Pittsburgh, Pa.
Central Iron & Steel Co., Harrisburg, Pa.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Granite City Steel Co., Granite City, Ill.
Gulf States Steel Co., Birmingham, Ala.
Jones & Laughlin Steel Corp., Pittsburgh, Pa.
Ryerson & Son, Inc., Jos. T., St. Louis and New York.
Tennessee Coal, Iron & Railroad Co., Birmingham.

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Amer. Creosote Wks., Inc., New Orleans.
Amer. Creosoting Co., Inc., Louisville, Ky.
Atlantic Creosoting Co., Norfolk, Va.
Ayer & Lord Tie Co., Inc., Chicago.
Brown Wood Preserving Co., Louisville, Ky.

—(Tubular, Steel).
Bessemer Galvanizing Works, Birmingham, Ala.
National Tube Co., Pittsburgh, Pa.
—(Yellow Pine).
Jackson Lumber Co., Lockhart, Ala.
—(Zinc Meta Arsenite Treated).
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Parkersburg, W. Va., Board of Commerce.
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Southern Natural Gas Corp., Birmingham.
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 —(Concrete Roof.)
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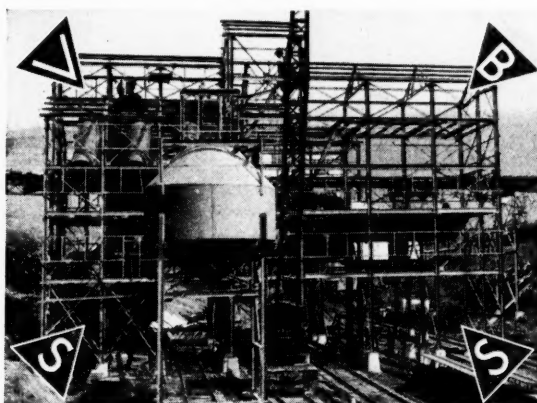
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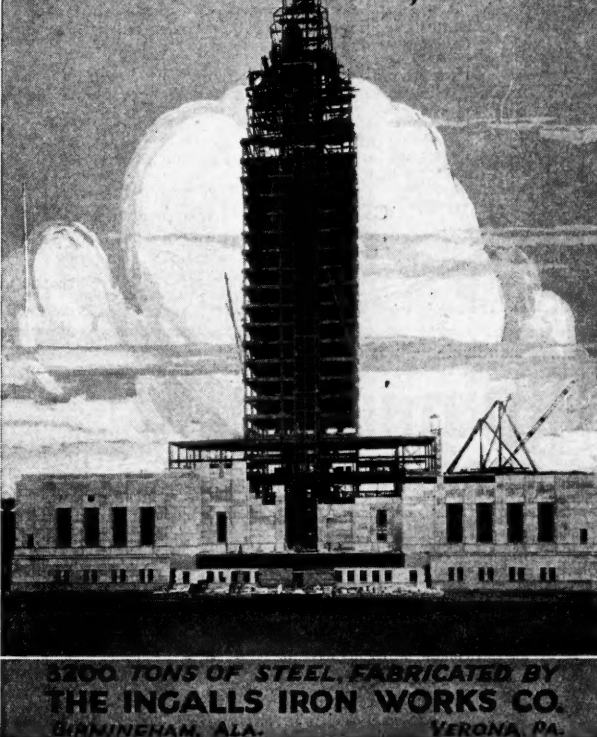
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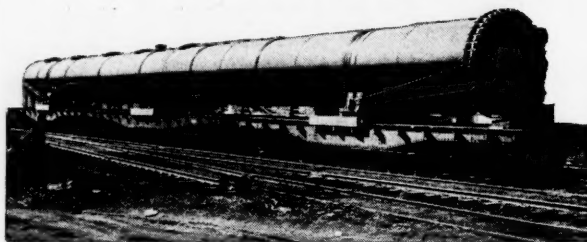
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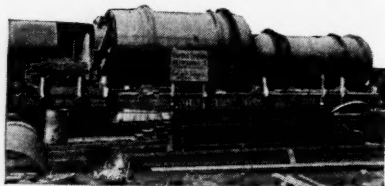
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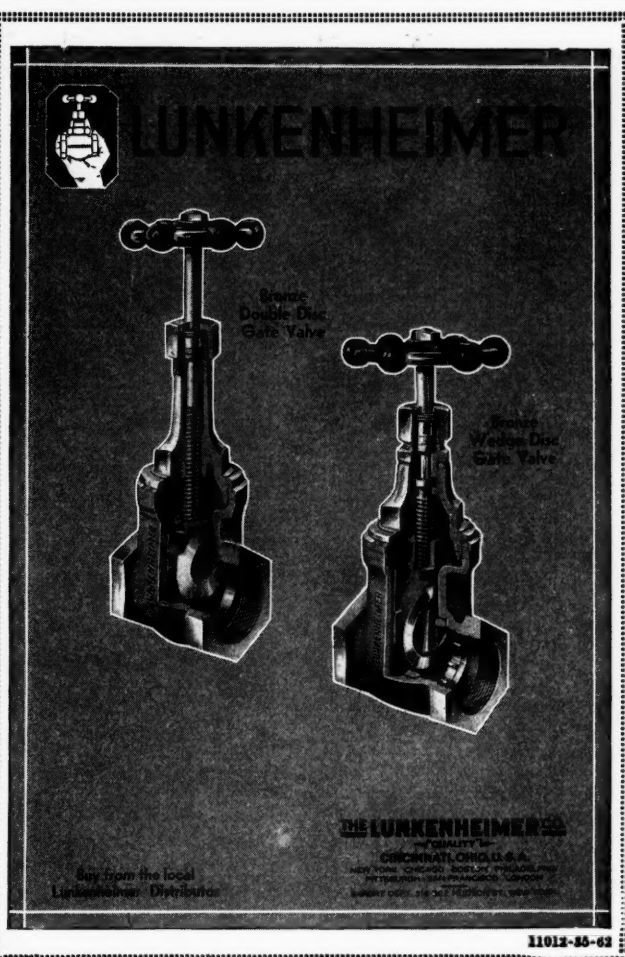
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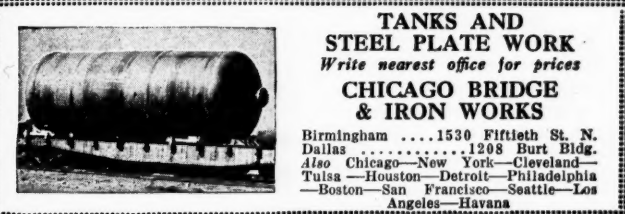


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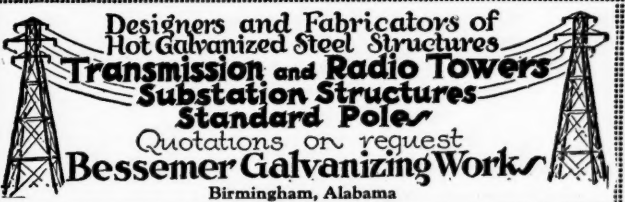
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